

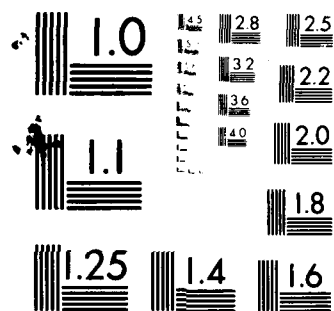
GENERAL ACCOUNTING OFFICE WASHINGTON DC PROGRAM ANAL--ETC F/6 5/1
THE CONGRESS SHOULD CONTROL FEDERAL CREDIT PROGRAMS TO PROMOTE --ETC(U)
OCT 81
GAO/PAD-82-22 NL

UNCLASSIFIED

NL



END
DATE
FILMED
1 82
DTIC



MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-A

AD A108558

LEVEL

(1) yw

BY THE COMPTROLLER GENERAL

(74)

Report To The Congress OF THE UNITED STATES

The Congress Should Control Federal Credit Programs To Promote Economic Stabilization

DTIC
ELECTE
DEC 14 1981
H

Federal credit assistance programs have contributed little to U.S. economic stability since 1960. The current rate of direct and guaranteed loan flows will exceed \$70 billion annually in fiscal 1981. Recently, the Congress and the Administration have proposed a credit budget to limit the rapid growth of Federal credit.

GAO demonstrates in this report that the best point of program control is the amount of the interest rate subsidy. Controlling subsidy levels rather than program activity levels would allocate credit efficiently and would, at the same time, lead to Federal credit flows that would contribute to the economic stabilization goals of the Federal Government.

DTIC FILE COPY



DISTRIBUTION STATEMENT A
Approved for public release;
Distribution Unlimited

411538

GAO PAD-82-32
OCTOBER 21, 1981

81 12 11 111

Request for copies of GAO reports should be sent to:

**U.S. General Accounting Office
Document Handling and Information
Services Facility
P.O. Box 6015
Gaithersburg, Md. 20760**

Telephone (202) 275-6241

The first five copies of individual reports are free of charge. Additional copies of bound audit reports are \$3.25 each. Additional copies of unbound report (i.e., letter reports) and most other publications are \$1.00 each. There will be a 25% discount on all orders for 100 or more copies mailed to a single address. Sales orders must be prepaid on a cash, check, or money order basis. Check should be made out to the "Superintendent of Documents".



COMPTROLLER GENERAL OF THE UNITED STATES
WASHINGTON D.C. 20548

B-204417

To the President of the Senate and the
Speaker of the House of Representatives

This report addresses two questions--to what degree are Federal credit assistance programs destabilizing in the aggregate in their impacts on economic stability and, to the extent that they are destabilizing, how can controls be implemented to further the economic stabilization goals of the Government? The Congress and recent Administrations have made proposals that would limit the rapid growth of Federal credit programs. These proposals have not given adequate consideration to the contribution of Federal credit programs to the economic stabilization goals of the Government. We believe that whatever method is adopted to control the level of credit programs, one objective should be to contribute to economic stabilization.

We are sending copies of this report to the Chairmen of the Senate and House Committees on the Budget, the Secretary of the Treasury, the Director of the Office of Management and Budget, and the Chairman of the Board of Governors of the Federal Reserve System.

Accession For	
NTIS	<input checked="" type="checkbox"/>
DTIC TAB	<input type="checkbox"/>
Unannounced	<input type="checkbox"/>
Justification	<i>Per</i>
By	<i>[Signature]</i>
Distribution/	
Availability Codes	
Dist	Avail and/or Special
<i>A</i>	

Milton J. Arnold
Acting
Comptroller General
of the United States

DISTRIBUTION STATEMENT A
Approved for public release:
Distribution Unlimited

COMPTROLLER GENERAL'S
REPORT TO THE CONGRESS

THE CONGRESS SHOULD CONTROL
FEDERAL CREDIT PROGRAMS TO
PROMOTE ECONOMIC STABILIZATION

D I G E S T

The amount of federally assisted loans outstanding will exceed \$500 billion in fiscal 1981, and the rate of new lending will exceed \$70 billion annually. Little of this is subject to the discipline of the Federal budget process. Federal credit assistance programs fill perceived needs in credit markets, change the allocation of financial and real resources, and subsidize selected groups; nonetheless, their effect on the economy is poorly understood.

The rapid growth of credit assistance programs has led both the Congress and the administration recently to propose credit budgets that would limit annual direct and guaranteed loan flows. More stringent standards for choosing, designing, and administering these programs have also been called for. These proposals represent efforts to reduce the growth rate of Federal credit programs, but they do not seek to promote Federal economic stabilization goals.

Explicit recognition should be given to the aggregate economic effects of Federal credit assistance programs and to the consistency of their annual volumes with fiscal and monetary policy. In this report, GAO's purpose is twofold. First, GAO raises the following questions:

- Are Federal direct and guaranteed loan programs in the aggregate stabilizing or destabilizing?
- If, on balance, they are destabilizing, can controlling them further the economic stabilization goals of the Government, and if so how?

In performing the analysis required to answer these questions, GAO finds that, in the past 20 years, Federal credit assistance programs have been destabilizing and inconsistent with

PAD-82-22
OCTOBER 21, 1981

fiscal and monetary policy. They might be controlled, however, through subsidy levels, in a way that would help stabilize the economy. Second, therefore, in this report, GAO's purpose is also to suggest a means by which this might be done.

DO CREDIT ASSISTANCE PROGRAMS
HELP STABILIZE THE ECONOMY?

In general, credit assistance flows, to be stabilizing, should oppose movements in the level of economic activity. That is, during rapid economic expansion, credit assistance should flow at a relatively low rate. During economic downturns or periods of relatively slow growth, credit assistance should flow at a relatively high rate. In other words, to be stabilizing, the aggregate level of loans and loan guarantees should move in a direction that is opposite to the direction of the business cycle.

GAO analyzed the relationship between the annual level of Federal credit assistance loans and indicators of economic performance and fiscal and monetary policy. This analysis shows that credit assistance loan flows between 1960 and 1979 generally moved in the same direction as the business cycle. Therefore, they reinforced movements in the business cycle and contributed little to economic stability. GAO's analysis also shows that Federal credit flows were not consistent with fiscal and monetary policy between 1960 and 1979. (pp. 7-11)

CAN CREDIT ASSISTANCE PROGRAMS
CONTRIBUTE TO ECONOMIC STABILITY?

Current and proposed efforts to control Federal credit programs are not intended to promote economic stabilization. Instead, they propose a credit budget to establish annual limitations on the amount of guaranteed and direct loan flows that may occur in the forthcoming budget years, and they propose more stringent standards for program choice, design, and administration. Controls on loan guarantee activity, however, should also promote economic stability. (pp. 12-14)

A control mechanism that promotes economic stability should cause new annual commitments

for loans and loan guarantees to fluctuate counter to the business cycle. It should also grant program benefits to the people who value them the most highly regardless of the stage of the business cycle. These two principles imply that the point of control for credit assistance flows should be the subsidy, not the level of program activity. Subsidies from credit assistance programs should be altered so that they curb demand for direct and guaranteed loans during periods of excessive economic growth and stimulate demand during less buoyant periods. (pp. 14-16)

Loan activity could be controlled in any given year by placing ceilings on program activity. This would not insure that available credit assistance would go to those who value it the most highly. If program activity levels were the point of control, credit assistance applicants would in all likelihood continue to receive loan commitments first-come first-served, even during periods of curtailment and regardless of the interest rate they would be willing to pay. (pp. 16-17)

To examine the extent to which the demand for federally assisted loans is correlated with the subsidy, GAO analyzed data on the Federal Housing Administration insured mortgage program. GAO used data from FHA because it is the largest Federal credit assistance program and its influence is greater than that of smaller programs. Moreover, the FHA data are consistent and continuous for a long period of time and the interest rate subsidy can be readily ascertained. (pp. 18-19)

Taking into account the levels of economic and financial market activity and the interest rates on alternative forms of mortgage, GAO finds a statistically valid, direct relationship between the level of subsidy and FHA mortgage commitments. This empirical evidence supports GAO's assertion that the interest rate subsidy is an important determinant of the demand for credit assistance. (pp. 19-21)

GAO did not perform similar analyses for other Federal direct and guaranteed loan programs. Nevertheless, GAO believes that it is reasonable to assume that the demand for loans under other Federal credit assistance programs also depends

partly on the level of benefits resulting from interest rate subsidies. The amount of subsidy could, therefore, be adjusted over the course of the business cycle to affect the level of annual loan flows from Federal direct and guaranteed loan programs. (pp. 21, 22-24)

MATTERS FOR CONSIDERATION
BY THE CONGRESS

Because Federal credit assistance programs have grown to exceed \$70 billion in current loan flows per year and because these programs have had a poor economic stabilization record over the past two decades, the Congress should consider

- adding to its present efforts to control Federal credit assistance flows a mechanism for controlling Federal loan programs that will support Federal economic stabilization goals;
- using as the point of control the amount of the subsidy, not ceilings on levels of loan activity. Targets on various credit program loan flows and aggregate loan flows should be established but only for the purpose of monitoring results;
- surveying Federal agencies to obtain needed information on the relationship between program levels and the amount of subsidy;
- monitoring the results of implementing the subsidy control mechanism and requiring periodic reports from the Secretary of the Treasury, the Chairman of the Board of Governors of the Federal Reserve System, and the Office of Management and Budget on the success of the operation of the control mechanism, taking into account current economic activity, conditions in financial markets, and fiscal and monetary policy.

The Board of Governors of the Federal Reserve System, the Department of the Treasury, and the Office of Management and Budget commented on a draft of this report. All three agencies believe that it is inappropriate to control Federal credit programs to promote economic stabilization goals. While GAO found their comments useful, nothing in them has led GAO to modify the report's basic premises or to change its conclusions. Their letters and GAO's detailed response appear in appendix III.

C o n t e n t s

		<u>Page</u>
DIGEST		i
CHAPTER		
1	INTRODUCTION	1
	Objectives, scope, and methodology	3
2	CREDIT ASSISTANCE PROGRAMS AS CONTRIBUTORS TO ECONOMIC STABILITY 1960-79	5
	Examining the record	7
	Federal credit activity	7
	Economic activity	7
	Fiscal policy	8
	Monetary policy	8
	Drawing conclusions	10
3	CURRENT CONSIDERATIONS IN CONTROLLING FEDERAL CREDIT PROGRAMS AND THE NEED FOR GREATER EMPHASIS ON ECONOMIC STABILIZATION	12
	Current proposals for control	12
	Emphasizing economic stabilization	14
4	THE IMPORTANCE OF SUBSIDIES ASSOCIATED WITH FEDERAL CREDIT PROGRAMS	18
5	SUMMARY AND CONCLUSIONS	22
	Implementing a subsidy control mechanism	24
	Agency comments and our response	24
	Matters for consideration by the Congress	25
APPENDIX		
I	Development of measures used in chapter 2	27
II	Development of measures used in chapter 4	33
III	Agency comments and our response	36
FIGURE		
1	Growth of total new commitments for Federal credit, fiscal years 1960-80	2
2	Controlling program levels	15
3	Controlling subsidies	15

TABLE

1	Measures of Federal credit assistance flows, economic activity, and fiscal and monetary policy in 1960-79	9
2	Measures of economic activity and Federal housing and nonhousing credit assistance flows in 1960-79	11
3	FHA insured mortgage subsidies and measures of program activity, economic activity, and monetary policy 1965-79	19
4	Multiple regression results for FHA loan activity	20
5	GNP and its trend	30
6	Derivation of a measure of monetary policy	30
7	Total credit assistance and its trend	31
8	Housing credit assistance programs and their trends	31
9	Nonhousing credit assistance programs and their trends	32
10	Correlation matrix for credit assistance variables, GNP, and fiscal and monetary policy	32
11	New commitments for FHA loans	33
12	The difference between FHA and conventional mortgage rates	34
13	Total funds advanced in U.S. credit markets and their trends	34
14	Conventional mortgage rates and their trends	35
15	Correlations between FHA loans and other variables	35

ABBREVIATIONS

FHA	Federal Housing Administration
GNP	Gross national product

CHAPTER 1

INTRODUCTION

The amount of federally assisted loans outstanding will exceed \$500 billion in fiscal 1981. The rate of federally assisted new lending will exceed \$70 billion. Federal credit programs fill perceived needs in credit markets, change the allocation of financial and real resources, and subsidize selected groups. However, efforts to subject them to the discipline of the budget process have been made only recently. At best, consideration of their effect on the economy has been piecemeal. How they do or do not contribute to its stability has not been evaluated.

Of the three types of Federal credit assistance--direct lending, guarantees of private lending, and government sponsorship of privately owned lending enterprises--we are concerned primarily in this report with direct lending and guarantees. Direct loans are made by on-budget and off-budget agencies and are financed from a variety of sources. Loan guarantees are arrangements in which agencies agree to secure lenders against borrowers' default.

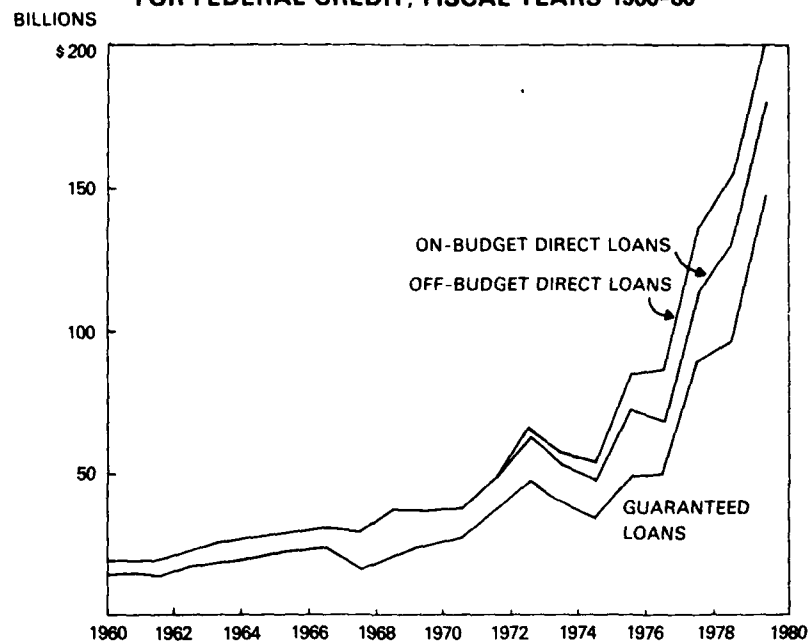
Government-sponsored enterprises are federally chartered financial intermediaries that facilitate the financing of selected economic activities. They are not included in the budget, and because they are privately owned and largely self-supporting, they should not be included in proposals for controlling Federal credit assistance. They are nonetheless important, because the Government sponsorship gives them a preferred position in securities markets and the large volume of loans that they generate has considerable effect on U.S. financial markets. But since they are not controlled by the Federal Government, we could accomplish little by including them here.

New guaranteed and direct loan activity grew rapidly in the last 10 years, and its character changed. Guaranteed loan programs expanded into areas of higher risk, exposing the Government to potentially greater liabilities. Until 1970, guaranteed loans were used almost exclusively for the well-established housing programs of the Federal Housing Administration and the Veterans Administration. By 1979, only about 70 percent of guaranteed loans were used for these programs. The remaining 30 percent included the student loan and minority business programs and large, discrete loans to New York City, the Chrysler Corporation, and others. Housing programs also took on riskier projects, among them the financing of low-income housing developments.

Off-budget loans and loan guarantees have grown more rapidly than direct Federal expenditures in recent years. While Federal expenditures increased by about 35 percent in 1976-79, new direct loans increased 70 percent and new loan guarantees increased

FIGURE 1

**GROWTH OF TOTAL NEW COMMITMENTS
FOR FEDERAL CREDIT, FISCAL YEARS 1960-80**



SOURCE: BUDGET OF THE UNITED STATES GOVERNMENT,
SPECIAL ANALYSIS ON CREDIT, FISCAL YEARS 1973-1981

108 percent (see figure 1). Federally raised funds as a percentage of the total funds raised in credit markets varied between 12 and 23 percent through 1979.

From 1970 to 1979, the gross national product increased 241 percent, from \$982 billion to \$2,369 billion. In the same period, Federal expenditures increased 249 percent, from \$204 billion to \$509 billion. Funds advanced in U.S. credit markets increased 437 percent, from \$94 billion to \$411 billion, a growth rate almost twice that of the gross national product and Federal expenditures. Funds advanced under Federal auspices grew 455 percent, comparable to privately advanced funds, which grew 435 percent.

The rapid growth of Federal credit assistance programs has led to increased interest in controlling them. The administration and the Congress have recently proposed that a credit budget should establish annual limitations on guaranteed and direct loan flows. More stringent standards for program choice, design, and administration have also been called for. These proposals seek to reduce the growth rate of Federal credit programs in the name of fiscal responsibility but not to promote economic stabilization.

OBJECTIVES, SCOPE, AND METHODOLOGY

In this report, we address the following questions:

- Are Federal credit assistance programs in the aggregate stabilizing or destabilizing?
- If they are, on balance, destabilizing, can they be controlled in a way that furthers the economic stabilization goals of the Government, and if so how?

To answer these questions, we used economic and statistical analysis techniques to compare annual credit assistance flows with indicators of economic performance and fiscal and monetary policy; we report the results in chapter 2. In making this analysis and comparison, we were interested in whether the annual volumes of direct and guaranteed loans have opposed or supported movements in economic activity and in fiscal and monetary policy. We did not address such questions as what proportion of economic instability can be attributed to credit assistance flows.

We obtained data for our analysis from the U.S. Budget, the Department of the Treasury, and other publicly available sources for 1960 through 1979. We judged the data reliability to be very good, forming a sound basis for analysis. In appendix I, we explain the measures we used to derive the conclusions we present in chapter 2.

In chapter 3, we report our analysis of current proposals for controlling Federal credit assistance program flows. Our sources for this analysis were documents we obtained from congressional hearings, the Congressional Budget Office, and other public sources as well as earlier reports of the U.S. General Accounting Office. In view of the volume of Federal credit programs, proposed control efforts should be consonant with economic stabilization goals. Moreover, benefits from the programs should flow to those who value them the most highly, regardless of the stage of the business cycle. These two principles imply that the point of control for credit assistance flows should be the subsidy rather than the program level, and in chapter 3 we show why we think so.

In chapter 4, we used economic and statistical analysis techniques again, this time to examine the extent to which subsidies determine demand for federally assisted loans. We chose the Federal Housing Administration insured mortgage program as a case study because, as the largest Federal credit assistance program, its influence is greater than that of smaller programs. Additionally, the data are consistent and continuous for a long period of time and the interest rate subsidy can be readily ascertained. We obtained yearly data from the U.S. Budget, the Federal Home Loan Bank Board, and the central data

bank of Data Resources, Inc. The reliability of the data is good. In appendix II, we explain the measure we used to derive the conclusions we present in chapter 4. We did not perform similar analyses on other Federal credit programs because a lack of data precluded comparably detailed analysis.

In chapter 5, we present our summary and conclusions. We also suggest matters for consideration by the Congress on the implementation of a subsidy control mechanism and the development of information on the effect of subsidies on loan demand. Agency comments on a draft of this report appear in appendix III, in which we print letters from the Board of Governors of the Federal Reserve System, the Department of the Treasury, and the Office of Management and Budget along with our detailed response.

CHAPTER 2
CREDIT ASSISTANCE PROGRAMS
AS CONTRIBUTEURS
TO ECONOMIC STABILITY 1960-79

In general, credit assistance flows, to be stabilizing, should oppose movements in the level of economic activity. That is, during rapid economic expansion, credit assistance should flow at a relatively low rate. During economic downturns or periods of relatively slow growth, credit assistance should flow at a relatively high rate. The main question we try to answer in this chapter is whether the level of annual flows from Federal credit assistance programs has supported or opposed cyclical fluctuations in economic activity in the past 20 years. We will also determine whether the direction of the flows has supported or opposed fiscal and monetary policy.

These questions are less complex than questions dealing with measuring the net addition that Federal credit assistance programs make to the level of economic activity. These sorts of questions have to do with the ability of loans to generate income, but the answers depend on a variety of considerations that we cannot answer here. These include (1) the extent to which loans and loan guarantees are analogous to more direct income-generating and output-generating expenditures, (2) the extent to which Federal credit programs represent true net additions to the supply of loanable funds rather than merely substitutions for available private credit, and (3) the extent to which Federal credit crowds out private lending opportunities. 1/

While it is safe to presume that by their nature Federal loans have the capacity to generate income and output, the extent to which this capacity falls short of the capacity of direct forms of Federal expenditure to do so is not readily ascertained. Federal loans and more direct forms of Federal expenditure are not exactly analogous. For one thing, loans and loan guarantees used to refinance existing loans do not generate income in the same way that loans used to purchase newly produced goods do. For another, the fact that loans are ultimately repaid alters their income-generating capacity over time. Therefore, it is not possible to determine precisely the extent to which Federal loans and loan guarantees represent additions to the level of economic activity.

1/For elaboration on these considerations, see Warren A. Law, "The Aggregate Impact of Federal Credit Programs on the Economy," in Commission on Money and Credit, Federal Credit Programs (Englewood Cliffs, N.J.: Prentice-Hall, 1963), pp. 247-316.

The extent to which Federal credit is complementary to private credit is similarly difficult to ascertain. If Federal loans and loan guarantees could be completely substituted for by private sources, then the net addition of Federal credit flows to total credit flows would be zero. This assumes that in the absence of Federal credit, private lenders would generate the same amount of loan activity as Federal credit programs do.

The argument that Federal loan guarantees are completely substitutable for private credit is usually associated with Federal guarantees of housing loans. It is argued that since mortgage lenders are the source of funds for both private mortgage loans and federally guaranteed or insured mortgage loans, no net addition can result from federally backed housing loans. In the long run, this is probably true. However, during any given period, flows of federally assisted housing loans may be greater than those that would originate privately, and the difference will represent a net addition to or subtraction from economic activity at that time.

In some cases, it is nevertheless clear that Federal credit is complementary to private credit. For example, all Federal programs designed to assist borrowers who legitimately cannot obtain credit elsewhere fall into this category. Several considerations would argue that a substantial portion of Federal loans and loan guarantees is complementary to some portion of privately loanable funds. For one, private loans that might be made at certain stages of the business cycle might not be made at others. For another, the large subsidy element in certain Federal credit programs indicates that private lenders would not be willing to lend on the same terms, if at all.

Finally, the extent to which Federal credit assistance programs replace private programs, diverting funds from other sources, is also a difficult question. To the extent that there is an excess supply of loanable funds, it is unlikely that this diversion or so-called crowding out occurs. To the extent that loanable funds are in short supply, the net addition of Federal credit programs to economic activity is questionable.

As the complexities inherent in these questions show, overcoming the analytical difficulties of determining the actual effects of Federal credit programs on the ability of the economy to generate income and output is a formidable, if not impossible, task. We can only presume that the precise effect of Federal direct and guaranteed loan programs lies somewhere between zero and that created by more direct forms of expenditure. For purposes of the question we pose in this report, however, it is not important to know the exact numbers; it is important to know that Federal credit programs do add to or detract from economic activity. In other words, a Federal deficit, for example, may have the same order of magnitude as some measure of Federal

credit activity during a highly inflationary period, but what concerns us in this report is that both types of involvement in the economy may be characterized as destabilizing, not that the direct expenditures implied by the deficit may be more destabilizing than, say, an equivalent level of gross loan-guarantee flows.

In the remainder of this chapter, we first show how we examined the record of Federal credit assistance in 1960 through 1979 as a contributor to and detractor from economic stability. We also show how we examined the consistency of Federal credit assistance with fiscal and monetary policy in that period. Then we present the conclusions we draw from this examination of the record. A complete discussion of our data base and method is contained in appendix I.

EXAMINING THE RECORD

Federal credit activity

The most useful series on Federal credit activity for the purpose at hand is gross direct and guaranteed loan commitments. There are several reasons for this. Commitments are more useful than drawdowns, because commitment is the point at which program control is most likely to occur. Furthermore, once a loan commitment has been made, beneficiaries begin planning to use the loan proceeds, behaving as if they were already in hand. Gross loan data are more useful than net flows, because expenditures resulting from loans and the economic effects of repayment are not synchronized. The economic effects associated with spending loan proceeds probably differ from those associated with repaying them. Furthermore, gross loan flows depict the current attitude toward using Federal credit program, whereas net flows reflect both decisions made in the present and the sum of many decisions made in the past.

During the 20 years 1960-79, Federal credit program grew almost uninterruptedly. Similarly, the level of economic activity as measured by GNP grew each year. Therefore, to perform our analysis--to isolate periods of relatively high and relatively low loan flows and economic growth--it was necessary to remove this growth rate trend from the credit assistance and economic activity series. To remove the effects of inflation from the series as well, we adjusted all data by the GNP deflator. Thus, the measure of Federal credit activity we employed is a detrended real series on annual gross direct and guaranteed loan commitments made from 1960 through 1979.

Economic activity

In 1960 through 1979, economic activity as measured by the output of the economy grew almost uninterruptedly. Thus, for reasons similar to those associated with credit assistance activity, we used a detrended series on gross national product to

isolate periods of relatively high and relatively low economic activity. We also deflated the series on GNP to eliminate the influence of inflation between 1960 and 1979.

The detrended series on GNP indicates turning points in the economy. Periods when GNP is above its trend may be characterized as periods of most rapid real economic growth, or peaks. Conversely, periods when real GNP is below its trend may be characterized as troughs or periods of slowest economic growth or, as in some cases, decline.

Fiscal policy

To examine the posture of fiscal policy, we used the deficit and surplus in the full employment budget. As an indicator of budget deficit or surplus, given currently legislated expenditures and receipts, the full employment budget surplus or deficit is superior to actual budget deficits and surpluses, because the latter measure is affected by certain automatic tendencies in the economy. During a recession, for example, Federal expenditures tend to rise, because of increased unemployment benefit payments, and revenues tend to fall, because of reduced income tax revenues. The full employment budget accounts for these automatic tendencies and thus reflects discretionary fiscal policy, with surpluses indicating restraint and deficits indicating stimulus. ^{1/}

Monetary policy

Like new loan commitments and GNP, the money supply has tended to increase exponentially over time. To examine the money supply as reflective of the posture of monetary policy, it is necessary to account for influences on the demand for money. For one, income rose continuously over the past 20 years, and in 1979 a greater amount of money was required to support transactions than had been required in 1960. Moreover, even though more money is needed now to support the higher levels of transaction, this relationship has not been directly proportional.

An increasing use of credit cards, for example, led to a lower demand for money to support transactions at given levels of income. Thus, in the period 1960 through 1979, nominal GNP increased 368 percent while the money supply increased by only 165 percent. Consequently, the long run velocity of money--defined as the ratio of nominal GNP to the money supply--increased from 3.5 to 6.2. With only one exception, the velocity increased every year in the 20-year period. This tendency of the velocity of money to increase is not attributable to monetary policy, however. It is the result of the increasing use of nonmonetary means of facilitating transactions.

^{1/}We obtained the full employment budget deficit or surplus from the Data Resources, Inc., central data bank. The source of all other data is explained in appendix I.

Table 1

Measures of Federal Credit Assistance Flows,
Economic Activity, and Fiscal and Monetary Policy
in 1960-79 (in Billions of Dollars) a/

	Detrended credit assistance	Detrended real GNP	Full employment budget surplus (or deficit)	Average % change in velocity minus actual change
1960	-17.19	-29.87	12.78	0.17
1961	-11.37	-38.96	10.25	2.64
1962	30.60	-23.53	7.85	-3.08
1963	- 1.15	-21.12	10.35	1.24
1964	1.51	- 7.49	3.30	0.89
1965	2.79	13.25	- 0.15	-0.43
1966	0.94	36.72	- 5.33	-3.59
1967	2.46	30.96	-14.05	3.85
1968	3.03	41.84	- 9.55	1.98
1969	- 1.60	34.79	7.30	-1.66
1970	- 0.98	- 3.62	2.15	3.03
1971	7.23	- 7.04	- 8.25	1.11
1972	4.35	20.06	-16.70	2.24
1973	-10.70	46.62	- 6.70	-2.49
1974	-10.23	- 8.60	- 2.95	-0.21
1975	- 9.95	-62.97	-31.05	0.87
1976	-10.66	-32.01	-26.88	-1.74
1977	5.12	- 5.03	-34.10	-0.32
1978	5.94	12.34	-23.02	-1.88
1979	10.23	2.61	- 6.55	-2.27

a/ Positive values indicate above average growth; negative values indicate below average growth.

The average annual rate of velocity increase in the period 1960 through 1979 was 3.07 percent. We attribute the difference between the actual and average rates of velocity change to actions taken by the Federal Reserve Board to stimulate or curtail economic activity. In the years that the increase in velocity exceeded the long run average, monetary policy was defined as restrictive. In the years that the increase in velocity was less than its long run average, monetary policy was defined as expansionary.

Data on all these measures--Federal credit assistance, economic activity, fiscal policy, and monetary policy--are presented in table 1 on the preceding page. Supplementary data and our method and interim calculations are presented in appendix I. The conclusions we have drawn are given in the rest of this chapter.

DRAWING CONCLUSIONS

To exert a stabilizing influence on economic activity, credit assistance flows should move countercyclically. That is, when the rate of economic activity is relatively high, credit assistance flows should be low in comparison to their historical trend, thus offsetting excessive expansionary tendencies in the economy. When economic activity is low, the flows should be comparatively high, to stimulate the economy.

The data contained in table 1, however, indicate that, more often than not in the last 20 years, credit assistance flows moved with the business cycle, reinforcing the tendency of the economy to grow at excessive or insufficient rates. In 14 of the 20 years, the signs on the credit assistance and economic activity measures were the same. Moreover, there is no evidence that credit assistance flows supported either fiscal or monetary policy. In 14 of the 20 years, credit assistance flows moved in a direction opposite to that of fiscal policy. In 11 of the 20 years, credit assistance flows moved in a direction opposite to that of monetary policy. ^{1/} Thus, the data indicate that Federal credit assistance flows have generally not been coordinated with the stance of fiscal and monetary policy and, that notwithstanding, they have not had a stabilizing influence on the economy.

Because of the concerns raised about expansion of Federal credit assistance activities into nontraditional areas and because of the relative decline in the importance of housing programs (as we indicated in chapter 1), we disaggregated the series on Federal credit assistance activities into housing and nonhousing loans. ^{2/} In this way, we hoped to determine whether either of these

^{1/}It is not our purpose in this report to assess whether, on balance, fiscal or monetary policy contributed to economic stability in 1960-79.

^{2/}The housing loan series includes only data from the FHA and VA housing programs.

Table 2

Measures of Economic Activity
and Federal Housing and Nonhousing
Credit Assistance Flows in 1960-79
(in Billions of Dollars)

	<u>Detrended housing</u> <u>credit</u>	<u>Detrended nonhousing</u> <u>credit</u>	<u>Detrended</u> <u>real GNP</u>
1960	-3.44	-14.33	-29.87
1961	-2.74	- 9.47	-38.96
1962	-1.20	30.76	-23.53
1963	-0.11	- 2.24	-21.13
1964	1.37	- 1.17	- 7.49
1965	1.29	0.15	13.25
1966	-2.45	2.04	36.72
1967	-2.64	3.82	30.96
1968	-0.05	1.91	41.84
1969	0.48	- 3.08	34.79
1970	4.02	- 5.78	- 3.62
1971	7.47	- 0.75	- 7.04
1972	1.89	2.29	20.06
1973	-6.80	- 3.68	46.62
1974	-7.47	- 2.11	- 8.60
1975	-6.44	- 2.35	-62.97
1976	-3.73	- 5.23	-32.01
1977	4.09	3.33	- 5.03
1978	6.85	1.60	12.34
1979	9.61	4.30	2.61

separate components was responsible for credit assistance programs moving in the same direction as the business cycle. In table 2, data on detrended housing and nonhousing credit flows can be compared with the detrended series on GNP.

That Federal credit assistance flows generally move with rather than in opposition to the business cycle is attributable to both housing credit and all other types of credit assistance. In 12 of the 20 years 1960-79, housing credit flows moved in the same direction as the business cycle. This was true for nonhousing loans in 16 of 20 years. This behavior of Federal direct and guaranteed loans appears to be pervasive rather than attributable merely to either one of the two program categories we isolated. Credit flows in both categories reinforced rather than opposed the business cycle in the majority of the years we studied. Federal activity over the past 20 years should, therefore, be characterized as having been generally destabilizing.

CHAPTER 3

CURRENT CONSIDERATIONS IN CONTROLLING FEDERAL CREDIT PROGRAMS AND THE NEED FOR GREATER EMPHASIS ON ECONOMIC STABILIZATION

It is not surprising that the record shows little contribution of credit assistance programs to economic stability. The programs have been and continue to be conceived ad hoc. Little consideration is given to their individual or collective effects on the economy. Any contribution they make to economic stability is therefore coincidental.

Furthermore, they can be expected to exert a destabilizing influence. Many Federal credit programs have ceilings on allowable interest rates. In others, there are lags between changes in allowable interest rates and changes in market-determined rates. Because of this, there is reason to expect credit program flows to move with the business cycle. That is, when economic activity is high and market interest rates are rising, the interest rates on Federal credit programs follow only slowly, if at all. Thus, the amount of subsidy tends to rise. In theory, this results in increased demand for federally assisted loans. Without limitations on supply, loan flows will increase during these periods. During periods of relatively low economic growth, the tendency is toward the reverse. That is, subsidies would tend to fall and so would demand.

In this chapter, we discuss current efforts to control the level of credit assistance activities. The program proposals that have already been made represent important first steps, but except for the Federal Lending Oversight and Control bill (H.R. 2372) in the 97th Congress, no mechanism is being considered for controlling the economic stabilization effects of Federal credit programs. In the last part of the chapter, we discuss the importance of controlling credit assistance programs from the perspective of economic stabilization and we assess various methods to do this from a theoretical perspective.

CURRENT PROPOSALS FOR CONTROL

Title IV of the Congressional Budget Act of 1974 (31 U.S.C. 1302) excludes loan guarantees from the targets and ceilings on budget authority and outlays that can be considered in the budget resolutions. This is because Federal outlays for loan guarantees are made not at the time of loan commitment but only in the event of default. In addition, certain off-budget agencies engaged in credit assistance activities have grown rapidly. Because of these two considerations, much of the credit assistance activity of the Federal Government is neither a part of the congressional budget process nor visible in the budget totals.

Amendments to the Congressional Budget Act have been proposed to make a credit budget an integral part of the congressional budget process. The President's January 1981 budget submission contained an explicit budget for credit assistance activities. All these steps would provide a means of reviewing the aggregate volume of credit activity and of subsequently placing limits on both individual programs and the total.

None of these proposals is supported by enacted legislation. The proposed ceilings could potentially restrain the growth of credit assistance programs. Restrained growth in credit assistance programs might ameliorate the major economic problem of inflation, if it persists, but this sort of contribution would be largely coincidental. Moreover, restrained growth in credit programs during a period of negative or a period of slow economic growth would not be stabilizing.

Other proposals being considered would affect the volume of Federal loan flows less directly. Many proposals would tighten standards and guidelines for choosing, designing, and administering various direct and guaranteed loan programs. This is because it has become clear that one contributor to the growth of Federal credit assistance activities is that, until just recently, no mechanism in the budget process allowed for reviewing their efficiency or adequacy.

Because Federal credit assistance has, for the most part, escaped budget scrutiny, it has been favored over other, more direct forms of assistance. The development of a process for reviewing the appropriate use of this instrument under various circumstances is not precluded by conceptual difficulties with scoring loan guarantees as budget outlays. The General Accounting Office, the Subcommittee on Economic Stabilization of the House Committee on Banking, Housing, and Urban Affairs, and the Congressional Budget Office have proposed guidelines for more rational assessment of the efficacy of loan guarantees.

Like congressionally imposed ceilings, tighter standards would reduce the level of credit assistance flows. The aggregate level of program activity would fall if some standards eliminated questionable borrowers from existing programs. Program proposals would be fewer in number, and those actually enacted would be more carefully constructed.

There is little question that a formal mechanism for reviewing annual credit flows and that tighter controls on the choice, design, and administration of Federal credit programs are needed. However, a greater contribution to economic stability from Federal credit flows is also needed. Just cutting rates of growth in program flows will not satisfy this need. Instead, fluctuations in the level of program activity should be allowed, depending on the stage of the business cycle.

EMPHASIZING ECONOMIC STABILIZATION

Loan programs can contribute to economic stabilization in one or the other of two fundamental ways. One would vary annual loan volumes so that they would move counter to the business cycle around some historical or desired average depending on the stage of the business cycle. The other would control interest rate subsidies so that their movements around a historical or desired average would imply that annual loan flows were moving countercyclically. Under either method, the benefits from programs should also flow to the people or groups who value them most highly regardless of the stage of the business cycle.

These considerations imply that the level of the subsidy is a more efficient point of control than the level of program activity. Subsidies could be adjusted by making changes in program interest rates, explicit interest subsidies, or guarantee fees, depending on the type of program, in a way that would curb demand for direct and guaranteed loans during periods of excessive economic growth and stimulate demand during less buoyant periods. The program level and the subsidy could be used as the point of control to achieve a countercyclical loan flow, but unless the interest rate subsidy is used, there is no way of allocating loans to the people who value them the most highly. We address this proposition in the paragraphs below.

Consider the two alternatives. Controlling a program's level would constrain or stimulate the gross amount of lending that could take place in a given year, but it would not change the interest rate or any other beneficial terms of the program. Controlling the subsidy could lead to the subsidy's being raised or lowered, while no constraint need be placed on program activity.

Assume, further, that in the absence of a control mechanism loans would be provided to any eligible applicants. (This assumption is not totally realistic, of course, but neither is it critical in arriving at comparative results, and it facilitates exposition.) Assume next that the economy is in an overly expansionary posture and that a policy decision is made to curtail loan activity. Figures 2 and 3 show the results of these assumptions.

Figure 2 shows the effect of placing a ceiling on lending --controlling program levels. When the rate of loan flow is reduced from OQ to OQ^1 , no change is made to the interest rate. Thus, instead of letting OQ loans flow at interest rate r , the ceiling of OQ^1 is imposed on loan flows at interest rate r . Given the demand for loans, the equilibrium interest rate is r^1 , but, because the interest rate is fixed at r , there is excess demand for Federal loans.

FIGURE 2
CONTROLLING PROGRAM LEVELS

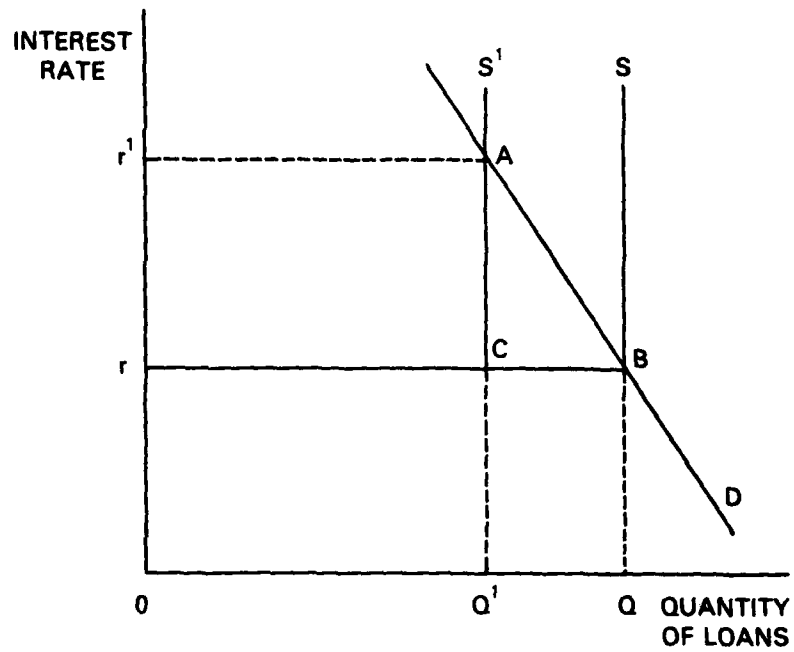
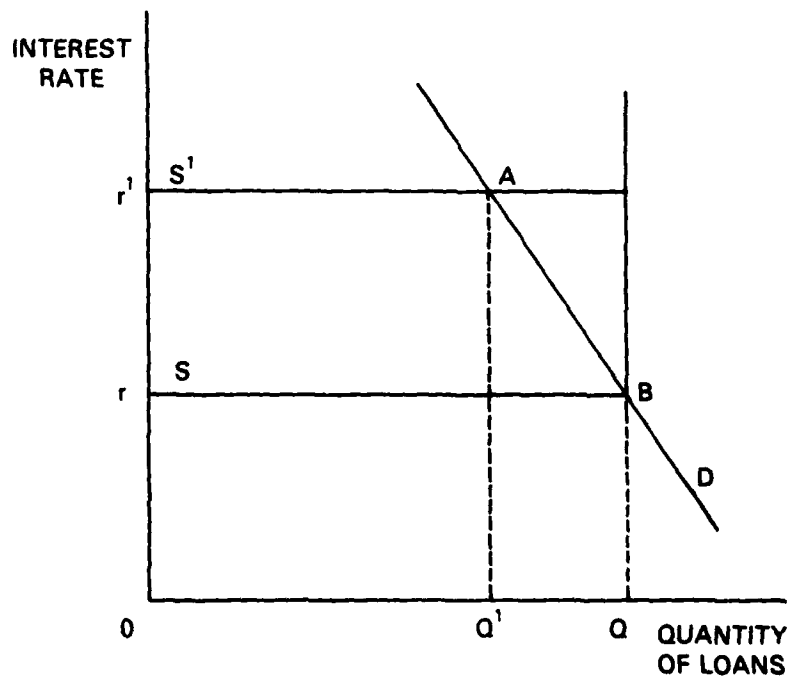


FIGURE 3
CONTROLLING SUBSIDIES



Since the interest rate cannot act as a rationing mechanism, the decision as to who gets a loan and who does not must be made administratively. Credit assistance programs generally make loan commitments to beneficiaries first-come first-served. Because this is so, many who would be willing to pay r^1 or more do not receive loans and many who would not be willing to pay a rate as high as r^1 nevertheless participate in the program. Therefore, placing limitations on loan flows means that those who value the program the most highly do not necessarily participate in it.

Now consider figure 3, which shows the effect of raising the interest rate on a program without an explicit constraint on loan flows. Suppose the interest rate is raised to r^1 . In this case, only people willing to pay an interest rate as high as r^1 would receive loans. Those unwilling to pay a rate this high would be rationed out of the market. In this example, the market would clear with OQ^1 loans made.

Clearly, controlling the level of interest rates lowers the costs of credit programs to the Government during periods of high economic activity. During periods of relatively low economic activity the costs would tend to rise. Over the course of the business cycle, therefore, the costs to the Government and the benefits to the program participants, though fluctuating, would tend to balance out.

Controlling interest rates is preferable to controlling loan flows. Either approach can control the volume of lending, but controlling interest rates allocates credit assistance to those who value it the most highly. Except in the case of programs whose explicit goal is to supplement income flow by means of credit subsidies, this is highly desirable. The most attractive projects with the highest private rate of return would be funded. Assuming that social benefits are equal across projects under a given program, undertaking the projects with the highest private rates of return is an efficient outcome when the desire is to constrain loan flows. Although it is beyond the scope of this report to study the design of Federal credit programs meant to augment income, it is possible to say that income can be augmented by means other than implicit subsidies in credit programs--or credit programs, for that matter--that are more explicit and visible in the budget totals.

One concern with using the subsidy as a control mechanism is that it is questionable public policy to vary subsidy benefits on Federal credit assistance programs just because of changes in the business cycle. Individuals in similar situations would receive dissimilar benefits at different stages of the business cycle. As an argument against controlling the subsidy, this equity consideration would be important were it not for the fact that, because many programs now have fixed interest rates, the same phenomenon is already occurring but perversely in relation to the business

cycle. In addition to this, because controlled subsidy levels would vary about some historical or desired average depending on economic conditions, there is no reason to expect that aggregate benefits over the course of the business cycle would vary from current or desired ones. Thus, over the longer run, the conferring of benefits to achieve the many objectives of credit programs could be preserved.

Another concern is that there are little data and empirical results on the interest elasticity of demand for direct and guaranteed loans. Therefore, raising or lowering interest rates on the various programs to curtail or stimulate demand leaves one uncertain about precisely what the ultimate level of loan activity will be. This argument, too, is mitigated by the fact that the same is also currently true in estimating the effects of fiscal and monetary policy. That is, the precise effects of tax cuts, changes in target money-supply growth rates, and the like are also unknown.

Several things that affect the sensitivity of loan demand to interest rate changes are generally known, however. These could be taken into account in deciding what relative increase or decrease in interest rates might be needed to achieve a given loan flow objective. For one, demand for loans of longer maturity is more sensitive to interest rate changes. For another, postponable projects to be financed with federally assisted loans (plant modernization, for example) are also very sensitive to interest rate changes. It is beyond the scope of this report to determine the precise effect of fluctuating interest rates on the demand for loans made under every Federal credit assistance program. However, in the next chapter, we discuss the issue of the importance of the subsidy as a determinant of loan demand for FHA-insured mortgages.

CHAPTER 4

THE IMPORTANCE OF SUBSIDIES ASSOCIATED WITH FEDERAL CREDIT PROGRAMS

The results from studying the data for the Federal Housing Administration program support the argument that subsidies influence the demand for federally assisted loans. We chose to analyze the FHA insured mortgage loan program because it is the largest Federal credit assistance program and its influence is greater than that of smaller programs. Furthermore, the data base of the FHA program is sufficiently continuous and consistent for time series analysis; it is one of only a few programs for which this is true. Finally, the FHA program is the only one of an even smaller number of Federal credit programs for which the actual subsidy can be calculated accurately. In this chapter, we summarize the results of our analysis of the FHA data. A discussion of the measures we used is in appendix II.

Subsidies on FHA insured mortgage loans are small when compared to subsidies on most other Federal credit programs, but they fluctuated considerably over the past two decades. The fluctuations resulted from lags between changes in levels of conventional mortgage rates and decisions to raise or lower FHA interest rate ceilings. Closer study shows that subsidies on FHA loans may be more imagined than real, however.

Private lenders are the source of funds for FHA insured loans. When FHA rates are lower than conventional rates, a private lender charges "points" to a seller, to make up for the difference between the two rates. The points may or may not be passed through to the buyer in the selling price of the property, depending on market conditions. Thus, buyers may not actually be subsidized even though, as the evidence we present below indicates, they probably perceive that they are.

The data in table 3 show the average annual difference between FHA insured mortgage rates and conventional rates and measures of FHA loan activity and economic activity from 1965 through 1979. A correlation between FHA loan activity and the subsidy is evident. In 8 of the 15 years in the analysis, there was a direct relation between the detrended subsidy and the detrended level of program activity. In those 8 years, when the subsidy was above its historic average, so too were FHA loan commitments, and when it was below, so were the commitments. The data also show that FHA loan commitment flows were mostly procyclical. In 10 of the 15 years, cyclical fluctuations in FHA loan commitments and the level of economic activity moved in the same direction.

Visual inspection of table 3 indicates that there is a relationship between subsidy levels and FHA loan flows. Complex interactions among the subsidies, the level of economic activity, and financial activity must be taken into account if we are

Table 3

FHA Insured Mortgage Subsidies and Measures
of Program Activity, Economic Activity,
and Monetary Policy 1965-79

	<u>Difference between FHA insured and conventional mortgage rates</u>		<u>Detrended real FHA new loan commitments b/</u>	<u>Detrended real GNP c/</u>
	<u>Actual</u>	<u>Detrended a/</u>		
1965	-0.563	0.118	4.004	13.25
1966	0.517	0.072	0.513	36.72
1967	0.457	0.012	-0.340	30.96
1968	0.473	0.028	1.708	41.84
1969	0.365	-0.080	2.530	34.79
1970	-0.011	-0.456	6.117	- 3.62
1971	0.695	0.250	7.426	- 7.04
1972	0.595	0.150	-0.136	20.06
1973	0.328	-0.117	-8.138	46.62
1974	0.007	-0.438	-7.936	- 8.60
1975	0.382	-0.063	-7.519	-62.97
1976	0.514	0.069	-6.345	-32.01
1977	0.722	0.27	-0.508	- 5.03
1978	0.432	-0.013	3.804	12.34
1979	0.642	0.197	4.821	2.61

a/Deviations of subsidy from historical average.

b/In billions of dollars. Deviations of FHA loan commitments from historical average adjusted to calendar year.

c/In billions of dollars.

to find the actual importance of the subsidy as a determinant of FHA loan flows. To estimate the strength of the relation between subsidies and loan flows as precisely as possible, we used multiple regression techniques to statistically fit a function relating FHA loan flows to the subsidy measure, the levels of economic and financial activity, and the cost of conventional mortgage financing. We deflated and detrended all variables having dollar values and detrended all interest rate values. Table 4 on the next page summarizes the regression results, and a complete description of our estimation procedures is in appendix II.

Given that all the variables are detrended, the fit of the equation is quite good. These variables explain 54 percent of

Table 4
Multiple Regression Results
for FHA Loan Activity

	<u>Regression coefficient</u>	<u>T statistic</u>
CONSTANT	- 25.26	-0.026
VARIABLE		
Detrended subsidy	14,304.40	2.749
Detrended real GNP	8.90	0.233
Detrended real total funds raised in credit markets	227.84	2.230
Detrended conventional mortgage rates	13,825.50	3.967
Corrected R ²	= 0.54	
Standard error	= 3532	
D.W. statistic	= 1.3926	
T critical - 95%	= 2.228	

the total variation in cyclical fluctuations of FHA loan commitments. Cyclical fluctuations in the amount of subsidy, the level of financial activity, and conventional mortgage rates have the expected sign and are statistically significant at a high level of confidence. ^{1/} Only the level of economic activity fails to be statistically significant.

The results indicate that the subsidy exerts a strong influence on FHA commitment flows. The coefficient on the subsidy variable indicates that 54 percent of the dollar volume of cyclical fluctuation in FHA commitments is caused by cyclical fluctuations in the amount of subsidy. The mean value of the deviation

^{1/}Expectations about the sign on the conventional mortgage rate variable were formed as follows. One might expect this sign in theory to be negative. That is, the higher that the level of conventional rates is, the lower would be mortgage loan activity, including FHA loan activity. However, the data we used are detrended, and they represent cyclical fluctuations in conventional rates. Therefore, to the extent that FHA and conventional mortgages are substitutes, we would expect that the higher that conventional rates are above their trend, the greater the demand for FHA loans would be, other things being equal.

in the subsidy above and below its historical average is 0.156 percent, or 15.6 basis points. The coefficient on the subsidy variable indicates that, for every 15.6 basis-point change in the subsidy above or below its trend, FHA loan commitments will be above or below their historical average by \$2.2 billion. Thus, the estimate indicates that cyclical fluctuations in subsidy levels have an important influence on cyclical fluctuations in FHA loan commitments.

The regression results support the impression given by the data in table 3 and also the logic of chapter 3. Because the data are detrended, the fitted relationship does not provide information on the precise relation between levels of subsidy and levels of loan flow. The only information given is about cyclical fluctuations, and even here the relationship should not be viewed as precise, because of the limited number of observations.

It is clear from the results that--at least in the case of the FHA insured mortgage loan program--the subsidy probably exerts a strong influence on the level of new commitments. Logic suggests this and, because the logic is supported by the data from a large Federal credit program, it is reasonably certain that changing subsidy levels will in general influence loan flows from Federal credit programs. Using the subsidy level as a potential control mechanism for the level of annual loan flows should, therefore, work. This is true, even though the precise effects of changing subsidy levels might not be known at the time they are changed. For these effects to be known, much more information would have to become available.

CHAPTER 5

SUMMARY AND CONCLUSIONS

The amount of Federal direct and guaranteed loans currently outstanding will exceed \$500 billion in fiscal 1981. New lending is running at an annual rate exceeding \$70 billion. Although the precise effect of these programs on the income and output of the economy is unknown, there is little question that they do affect economic activity. Because their loan volumes are so high and have increased so rapidly, we have questioned whether the programs facilitate or detract from economic stability and whether the ebb and flow of loan commitments support or are inconsistent with Federal policies designed to influence the stability of the economy.

We conducted a comparative empirical analysis of the coincidence of credit assistance loan flows with the level of economic activity during the past 20 years. We found that in 1960 through 1979, credit assistance flows moved more often than not in the same direction as the business cycle, thus reinforcing its movements and contributing little to economic stability. We also found that the flow of Federal credit was not consistent with the stance of fiscal and monetary policy.

In 14 of the 20 years, credit assistance loan flows moved in the same direction that the economy was moving in. That is, between 1960 and 1979, when economic activity was relatively high, so too were credit assistance flows, and when economic activity was low, so were the loan flows. In 14 of the 20 years, credit assistance flows were inconsistent with the stance of fiscal policy; in 11 of the 20 years, they were inconsistent with monetary policy.

This procyclical record of credit assistance programs is not explained by the growth in nontraditional programs. Housing programs contributed about as much as nonhousing programs did to the procyclical nature of Federal credit assistance programs in the past two decades.

Because of the size and the procyclical activity of Federal credit programs, consideration should be given to controlling them in a manner that will facilitate economic stabilization. Legislation has been proposed that would amend the Congressional Budget Act to set ceilings and targets for loan flows in a credit budget. The President's January 1981 budget submission contained an explicit budget for credit activities. These are all important first steps.

We suggest adding countercyclical economic stabilization as an important policy objective. Achieving this objective implies not just cutting rates of program growth--except for programs poorly designed or no longer appropriate, which should

be overhauled or ended. Rather, it also implies varying program flows around some desired long term rate of growth that depends on the stage of the business cycle and the stance of fiscal and monetary policy.

Two principles must be kept in mind in devising a means of controlling programs so that they will facilitate economic stability. These are:

- the mechanism should cause annual loan flows to fluctuate countercyclically, in a direction opposite to that of the business cycle;
- program beneficiaries should be those who value benefits the most highly regardless of the business cycle.

These principles imply that the level of the interest subsidy is a more efficient point of control than the level of program activity.

To achieve economic stabilization objectives, control can in theory be exerted through either ceilings on loan flows or changes in the level of subsidy. In practice, the subsidy is the more appropriate rationing device. When a subsidy is changed to curtail or stimulate demand, only people willing to pay the changed program interest rates or fees will participate. Those not willing to pay the rate can be assumed to value the program less highly. On grounds of economic efficiency, this is a more desirable outcome than benefiting loan applicants first-come first-served, in which many are granted commitments who are not willing to pay the interest rate implied by either a curtailed or an expanded level of loan activity and many are denied credit who would be willing to pay.

The principal drawback of using the subsidy as a point of control is that the precise annual loan flow cannot be determined. This is also currently true of the outcome of fiscal and monetary policy, however. The precise effects of targeted money-supply growth rates and the like are not known. Some parts of the budget are subject to precise control; in other areas, the consequences of budget decisions are very difficult to predict.

Empirical estimation of the relationship between the level of subsidy and the level of program activity verifies the common sense notion that the value of the subsidy has an important influence on loan demand. We used data from the FHA insured mortgage program to statistically fit the relationship. The FHA program is the largest Federal credit program, and an adequate time series and straightforward calculation of the subsidy make our estimates reasonably reliable. When the influence of the level of economic and financial activity and the price of substitute loans are taken into account, the subsidy exerts an important influence on the level of loan demand--about 54 percent of the average cyclical fluctuation in the value of FHA commitments is attributable to cyclical fluctuations in subsidy level.

IMPLEMENTING A SUBSIDY CONTROL MECHANISM

The general process by which a control mechanism could be implemented is fairly straightforward. The first step is to determine whether the current and anticipated rates of economic activity are higher than, lower than, or consistent with their long run trends. If, for example, economic activity is higher than its long run trend, targets could be set for Federal credit assistance activity that imply loan flows lower than either the current long run trend or some other, desired long run trend. Given a target for the aggregate, program levels of activity can be targeted. Subsidies could then adjust downward by changed program interest rates to achieve the targeted level of loan activity. Similar steps would be taken but in reverse if the level of economic activity is lower than its long term trend.

The precise effects on loan demand of a subsidy control mechanism are not known. Agencies administering Federal credit assistance programs should be surveyed to ascertain what is currently known, and to the extent that available information is reasonably complete, preliminary estimates should be made of the effects on loan demand of changing program interest rates, direct subsidies, and guarantee fees. It would not be necessary to know the precise interest subsidy on each program. Indeed, this type of estimate is not possible, but this does not preclude adjusting interest rates up or down in relation to some general interest rate proxy or commercial interest rate charged for activities similar to those sponsored by Federal programs. None of this implies that one will ever know the precise relationship between changing subsidy levels and loan flows for all Federal credit programs. Furthermore, for certain one-time loan guarantee and direct loan programs, the entire concept of control for purposes of economic stabilization is not workable.

The ultimate outcome from controlling subsidies in a given year will depend on many things. These include the conditions in private credit markets, interest rates on closely substitutable loans (if they exist), and the rate of economic activity. These and other factors also influence the efficacy of fiscal and monetary policy.

AGENCY COMMENTS AND OUR RESPONSE

The Board of Governors of the Federal Reserve System, the Department of the Treasury, and the Office of Management and Budget commented on a draft of this report. All three agencies believe that it is inappropriate to control Federal credit programs to promote economic stability. They commented, in essence, that our proposal to let credit assistance flows fluctuate around some long term desired rate of growth is an attempt at "fine tuning." We do not agree with this characterization, primarily because we believe

that an interest subsidy control mechanism need not be discretionary. Ideally, interest rate subsidies should adjust automatically to changes in economic activity or levels of commercial rates. Furthermore, we believe that using the market mechanism of interest rates to allocate credit in a way that does not exacerbate business-cycle fluctuations that are federally induced is consonant with the current Administration's philosophy on the role of the Federal Government in promoting economic growth. In general, we agree with all three agencies that current attempts at control are an important step forward, inasmuch as they represent efforts to bring Federal credit programs into the budget process. We also agree that a better understanding of the allocative effects (and possible unintended side effects) of Federal credit programs and a reassessment of the program's achievement of originally intended social purposes should have high priority. We have long advocated the pursuit of a budgetary control process for Federal credit assistance programs, continual evaluation of their efficacy, and identification of alternative means of assistance that would achieve credit program objectives more efficiently. In view of these conclusions and considerations, therefore, we offer the following matters for consideration by the Congress.

MATTERS FOR CONSIDERATION
BY THE CONGRESS

Because the growth of Federal credit assistance programs has resulted in current loan flows exceeding \$70 billion annually and because these programs have had a poor economic stabilization record over the past two decades, the Congress should consider

- adding to its present efforts to control Federal credit assistance flows a mechanism for controlling Federal loan programs that will support Federal economic stabilization goals;
- using as the point of control the amount of the subsidy, not ceilings on levels of loan activity. Targets on various credit program loan flows and aggregate loan flows should be established but only for the purpose of monitoring results;
- surveying Federal agencies to obtain needed information on the relationship between program levels and the amount of subsidy;
- monitoring the results of implementing the subsidy control mechanism and requiring that reports be prepared periodically by the Secretary of the Treasury, the Chairman of the Board of Governors of the Federal Reserve System, and the Office of Management and Budget on the success of the operation of the control mechanism, taking into account current economic activity, conditions in financial markets, and fiscal and monetary policy.

DEVELOPMENT OF MEASURES USED IN CHAPTER 2

We removed the long run average historical growth rate from all economic data series and deflated them to a 1972 base. Most aggregate economic data series have grown substantially over the last 20 years. Had we compared series that had not been detrended, much of the correlation between series would have been caused by the average yearly growth rates of the series. For our multivariate data analysis, detrending also reduced or eliminated multicollinearity among variables. Thus, our comparisons between the various series are comparisons of cyclical fluctuations. We neither deflated nor detrended our measures of fiscal and monetary policy, because there was no apparent trend in either series and because deflating them was not considered necessary. Data bases for our calculations are given in tables 5-10 at the end of this appendix.

ECONOMIC ACTIVITY

In measuring economic performance, we focused on the output of the economy. Output is an appropriate gauge of economic performance because employment, production, and prices are all linked with this aggregate. The most common yardstick of an economy's output is its gross national product, defined as the dollar value of the final goods and services an economy produces in a year. We used real GNP, because it compensates for price changes. Instead of using the dollar value at the time of production, as nominal GNP does, real GNP uses the dollar value in a base year--in this case 1972.

The equation we used for detrending the real GNP series is

$$Y_t = 465 + 15.9t + 0.42t^2$$

(14.6) (4.37) (4.42)

where Y_t represents real GNP in year t . The numbers in parentheses are the t statistics for the coefficients. $R^2 = 0.99$. We subtracted trend values predicted by the equation from actual values of real GNP, to isolate cyclical fluctuations in the economy. Peaks indicate that output, along with employment and income, has risen to a high point. Troughs indicate that an economic low point has been reached. Table 5 contains all the data we used in calculating detrended real GNP.

FISCAL POLICY

As a tool of stabilization, fiscal policy relies on the Federal Government's tax and expenditure decisions. Increasing spending and decreasing taxation are thought to stimulate a slumping economy. Decreasing spending and increasing taxation is thought to restrain economic activity. This suggests that a Federal budgetary deficit or surplus is a useful gauge of fiscal policy. Were this true, a deficit would indicate a policy of stimulus, while a surplus would indicate a policy of restraint.

The problem with judging fiscal policy by the actual budget deficit or surplus is that certain automatic responses in the economy influence this measure. During a recession, the actual budget deficit tends to rise because of an increase in unemployment benefits and a decrease in income tax revenues. Similarly, rising employment and salaries during a boom automatically lead to an increase in revenues and a decline in expenditures. Thus, observed budget deficits and surpluses reflect the effects of both automatic and discretionary fiscal policy and, therefore, cloud the actual stance of fiscal policy.

The high-employment budget surplus adjusts for these automatic responses. This measure indicates what the actual budget surplus would be, given the currently legislated expenditures and receipts, if the economy were at a high level of employment. A high employment deficit, not necessarily an actual budget deficit, signals an expansionary fiscal policy. A high employment surplus indicates that attempts at restraint are being imposed on the economy. The high-employment budget surplus series is given in chapter 2, table 1.

MONETARY POLICY

Like real GNP, the money supply tends to increase exponentially over time, along with increases in income. We define the money supply as equal to demand deposits and currency in circulation or M1. To measure the stance of monetary policy, we used data on the velocity of money adjusted for two tendencies. The velocity of money is defined as the ratio of GNP to the money supply. While the Federal Reserve Board influences the money supply, the level of the money supply at any point in time reflects both supply and demand.

Accordingly, we took into account the two trends that have the largest effect on money demand. First, people's incomes are continually rising. Higher incomes lead to more transactions. The increase in the number of transactions increases, in turn, the demand for money to support them. This does not imply, however, that over time money demand has increased as a constant proportion of increases in income. If it did, the velocity of money would be constant, except for changes induced by the Federal Reserve Board.

In recent years, the use of credit cards, among other things, has led to an increasing velocity of money. Increasing velocity suggests that the timing of expenditures has also accelerated. Thus, the average amount of money required to support a given level of spending has declined. Table 6 shows our calculation of the velocity of money, the percentage change in the velocity, and our measure of monetary policy.

Our measure of monetary policy is the difference between the average percentage change in velocity over the 20 years and the percentage change in velocity for each year. When the percentage change in velocity exceeds its average rate of change,

APPENDIX I

APPENDIX I

we define monetary policy as restrictive (indicated by minus signs in table 6). When the percentage change in velocity is less than its average rate of change, monetary policy is expansionary.

FEDERAL CREDIT FLOWS

We estimated the long run historical average trend rate of growth for deflated Federal credit gross direct and guaranteed loan commitments by the following equation:

$$Y_t = 164,989 - 13,598t + 364.9t^2$$

(3.72) (-3.67) (4.40)

where Y_t is total credit in year t . The numbers in parentheses represent the t statistic for each coefficient. $R^2 = 0.82$. The deviations above and below this trend line are defined as the cyclical fluctuations in Federal credit loan flows, and we compared them with the previously described measures of the performance of the economy and fiscal and monetary policy. All the data we used in estimating this series are contained in table 7.

It should be noted that some double counting occurs in the credit assistance totals in table 7 because some loans that are secondarily guaranteed are included in the gross loan totals. Also some loan guarantees are converted to direct loans made by the Federal Financing Bank. Eliminating double counting is possible for the gross loan totals but not when totals are disaggregated into housing and nonhousing loans. To test the sensitivity of our results to this problem, we compared the detrended series for total credit assistance as used in the text with the same detrended series adjusted to compensate for the double counting. We obtained exactly the same results as in the analysis shown in chapter 2. This is largely because we analyzed only detrended data in the report, and we would not expect our results to be particularly sensitive to the double counting that occurs.

HOUSING AND NONHOUSING CREDIT FLOWS

Tables 8 and 9 show nominal levels, deflated levels, and deflated and detrended levels for both housing and nonhousing credit programs. Because housing programs possessed no time trend over the past two decades, housing values represent deviations from their mean from 1960 through 1979. The equation we used to detrend the nonhousing component of the Federal credit series is

$$Y_t = 134,444 - 12,547t + 337.8t^2$$

(3.68) (-3.87) (4.93)

where Y_t is the nonhousing component of total credit flows in year t . The numbers in parentheses represent the t statistic for each coefficient. $R^2 = 0.85$. Correlation coefficients for all the measures we developed in this analysis are in table 10.

APPENDIX I

APPENDIX I

Table 5
GNP and Its Trend
(in Billions of Dollars)

	<u>Nominal GNP</u>	<u>GNP Deflator</u>	<u>Real GNP</u>	<u>Trend in real GNP</u>	<u>Real GNP minus its trend</u>
1960	506.512	0.6867	737.603	766.673	-29.873
1961	524.554	0.6928	757.151	794.258	-38.958
1962	565.039	0.7055	800.906	822.650	-23.525
1963	596.714	0.7159	833.516	851.852	-21.127
1964	637.719	0.7271	877.072	881.861	- 7.486
1965	691.051	0.7432	929.832	912.679	13.246
1966	755.981	0.7676	984.863	944.306	36.719
1967	799.585	0.7902	1,011.877	976.741	30.959
1968	873.392	0.8257	1,057.759	1,009.984	41.841
1969	943.996	0.8672	1,088.556	1,044.036	34.789
1970	992.734	0.9136	1,086.618	1,078.896	- 3.621
1971	1,077.619	0.9602	1,122.286	1,114.564	- 7.039
1972	1,185.923	1.0000	1,185.923	1,151.041	20.059
1973	1,326.396	1.0580	1,253.682	1,188.327	46.623
1974	1,434.220	1.1602	1,236.183	1,226.420	- 8.595
1975	1,528.833	1.2715	1,202.385	1,265.323	-62.973
1976	1,702.156	1.3371	1,273.021	1,305.033	-32.008
1977	1,899.508	1.4170	1,340.514	1,345.552	- 5.027
1978	2,127.560	1.5205	1,399.250	1,386.880	12.345
1979	2,368.800	1.6546	1,431.645	1,429.016	2.609

Source: Nominal GNP, the GNP deflator, and real GNP are from the Data Resources, Inc., central data base. The trend in real GNP is derived from the equation on page 27.

Table 6
Derivation of a Measure
of Monetary Policy

	<u>Nominal GNP</u> <u>(\$ billions)</u>	<u>Money supply</u> <u>(\$ billions)</u>	<u>Velocity of</u> <u>money supply</u>	<u>Percentage change</u> <u>in velocity</u>	<u>Measure of</u> <u>monetary policy</u>
1960	506.51	144.2	3.513	3.24	-0.17
1961	524.55	148.7	3.528	0.43	2.64
1962	565.04	150.9	3.744	6.15	-3.08
1963	596.71	156.5	3.813	1.83	1.24
1964	637.72	163.7	3.896	2.17	0.89
1965	691.05	171.4	4.032	3.50	-0.43
1966	755.98	175.8	4.300	6.66	-3.59
1967	799.59	187.4	4.267	-0.78	3.85
1968	873.39	202.5	4.313	1.09	1.98
1969	944.00	209.0	4.517	4.73	-1.66
1970	992.73	219.7	4.519	0.04	3.03
1971	1,077.62	233.9	4.607	1.96	1.11
1972	1,185.92	255.3	4.645	0.83	2.24
1973	1,326.40	270.5	4.903	5.56	-2.49
1974	1,434.22	283.2	5.064	3.28	-0.21
1975	1,528.83	295.4	5.175	2.19	0.87
1976	1,702.16	313.8	5.424	4.81	-1.74
1977	1,899.51	338.7	5.608	3.39	-0.32
1978	2,127.56	361.5	5.885	4.94	-1.88
1979	2,368.80	382.1	6.199	5.34	-2.27
AVERAGE			4.60	3.067	

Source: Nominal GNP and money supply are from the Data Resources, Inc., central data base. Other series were calculated as described in this appendix.

APPENDIX I

APPENDIX I

Table 7
Total Credit Assistance and Its Trend
(in Millions of Dollars)

	<u>Nominal credit assistance</u>	<u>Deflated credit assistance</u>	<u>Trend in credit assistance</u>	<u>Credit assistance minus its trend</u>
1960	19,888.0	28,961.7	46,152.0	-17,190.3
1961	22,011.0	31,771.1	43,138.0	-11,366.9
1962	50,414.0	71,458.5	40,854.0	30,604.6
1963	27,313.0	38,152.0	39,299.8	- 1,147.9
1964	29,071.0	39,982.1	38,475.6	1,506.5
1965	30,601.0	41,174.7	38,381.4	2,793.3
1966	30,668.0	39,953.1	39,017.0	936.1
1967	33,856.0	42,844.8	40,382.6	2,462.3
1968	37,574.0	45,505.6	42,478.0	3,027.6
1969	37,900.0	43,703.9	45,303.4	- 1,599.6
1970	43,745.0	47,882.0	48,858.8	- 976.8
1971	57,967.0	60,369.7	53,144.0	7,225.7
1972	62,513.0	62,513.0	58,159.2	4,353.8
1973	56,287.0	53,201.3	63,904.2	-10,702.9
1974	69,782.0	60,146.5	70,379.2	-10,232.7
1975	85,999.0	67,635.9	77,584.2	- 9,948.3
1976	100,095.0	74,859.0	85,519.0	-10,659.2
1977	140,711.0	99,302.0	94,183.8	5,118.3
1978	165,836.0	109,066.8	103,578.4	5,488.3
1979	205,067.0	123,937.5	113,703.0	10,234.5

Source: Credit assistance totals compiled from the Special Analyses of the Budget; series interpolated to calendar year.

Table 8
Housing Credit Assistance Programs
and Their Trends
(in Millions of Dollars)

	<u>Nominal credit assistance</u>	<u>Deflated credit assistance</u>	<u>Credit assistance minus its trend</u>
1960	12,553.0	18,280.2	-3,435.7
1961	13,148.0	18,978.1	-2,737.8
1962	14,473.0	20,514.5	-1,201.4
1963	15,470.0	21,609.2	- 106.7
1964	16,787.0	23,087.6	1,371.7
1965	17,098.0	23,005.9	1,290.0
1966	14,787.0	19,263.9	-2,452.0
1967	15,073.0	19,074.9	-2,641.0
1968	17,885.0	21,660.4	- 55.5
1969	19,245.0	22,192.1	476.2
1970	23,515.0	25,738.8	4,022.9
1971	28,026.0	29,187.7	7,471.8
1972	23,610.0	23,610.0	1,894.1
1973	15,776.0	14,911.2	-6,804.7
1974	16,528.0	14,245.8	-7,470.1
1975	19,421.0	15,274.1	-6,441.8
1976	24,050.0	17,986.7	-3,729.2
1977	36,565.0	25,804.5	4,088.6
1978	43,437.0	28,567.6	6,851.7
1979	51,831.0	31,325.4	9,609.5

Source: Compiled from the Special Analyses of the Budget; series interpolated to calendar year.

APPENDIX I

APPENDIX I

Table 9
Nonhousing Credit Assistance Programs
and Their Trends
(in Millions of Dollars)

	<u>Nominal</u> <u>credit assistance</u>	<u>Deflated</u> <u>credit assistance</u>	<u>Trend in</u> <u>credit assistance</u>	<u>Credit assistance</u> <u>minus its trend</u>
1960	7,335.0	10,681.5	25,008.2	-14,326.7
1961	8,863.0	12,793.0	22,259.0	- 9,466.0
1962	35,941.0	50,944.0	20,185.4	30,758.6
1963	11,843.0	16,542.8	18,787.6	- 2,244.7
1964	12,284.0	16,894.5	18,065.4	- 1,170.8
1965	13,503.0	18,168.7	18,018.8	149.9
1966	15,881.0	20,689.2	18,648.0	2,041.2
1967	18,783.0	23,769.9	19,952.8	3,817.1
1968	19,689.0	23,845.2	21,933.4	1,911.9
1969	18,655.0	21,511.8	24,589.6	- 3,077.8
1970	20,230.0	22,143.2	27,921.4	- 5,778.3
1971	29,941.0	31,182.0	31,929.0	- 747.0
1972	38,903.0	38,903.0	36,612.2	2,290.8
1973	40,511.0	38,290.2	41,971.2	- 3,681.0
1974	53,254.0	45,900.7	48,005.8	- 2,105.1
1975	66,578.0	52,361.8	54,716.0	- 2,354.3
1976	76,045.0	56,873.1	62,102.0	- 5,228.9
1977	104,146.0	73,497.5	70,163.6	3,333.9
1978	122,399.0	80,499.2	78,901.0	1,598.2
1979	153,236.0	92,612.1	88,314.0	4,298.2

Source: Compiled from the Special Analyses of the Budget; series interpolated to calendar year.

Table 10
Correlation Matrix for Credit Assistance
Variables, GNP, and Fiscal and Monetary Policy a/

	(1)	(2)	(3)	(4)	(5)	(6)
(1) Total Federal credit assistance	1.000					
(2) Housing credit assistance	0.553	1.000				
(3) Nonhousing credit assistance	0.906	0.177	1.000			
(4) GNP	0.193	0.157	0.112	1.000		
(5) Fiscal policy measure	0.004	-0.079	-0.065	0.015	1.000	
(6) Monetary policy measure	-0.227	-0.005	-0.345	-0.132	0.042	1.000

a/All series are detrended. Credit assistance series are also deflated.

DEVELOPMENT OF MEASURES USED IN CHAPTER 4

The annual data series cover 1965-79, not 1960-79, the span in chapter 2. We deflated and detrended the data by the methods in appendix I. Tables 11-14 show the deflated and detrended series in chapter 4. We detrended the measures of FHA loans and the gap between conventional and FHA loans by subtracting each year's value from the historical average of the series. We detrended funds advanced in U.S. credit markets by the equation

$$Y = 27.49 - 1.97t + 0.267t^2$$

(0.15) (-0.14) (0.99)

where Y = funds advanced and t = time. The numbers in parentheses represent the t statistic for the coefficient. $R^2 = 0.90$. We detrended the conventional mortgage rate by the equation

$$Y = 0.651 + 0.286t$$

(0.912) (10.56)

where Y = conventional mortgage rate, t = time, and $R^2 = 0.88$. Table 15 presents the correlation matrix for the variables we used in chapter 4.

The FHA mortgage ceiling rates are for single family housing only. New commitments for FHA loans include some multifamily and home improvement loans. This inconsistency complicates the relationships being measured by the regression analysis on page 20 but does not invalidate our conclusion that the amount of subsidy exerts a strong influence on the level of FHA commitments. Our data on FHA loans are for commitments, not for loans insured; a commitment may not always be followed by an insured loan.

Table 11

New Commitments for FHA Loans
(in Millions of Dollars)

	<u>FHA loans</u>	<u>Deflated FHA loans</u>	<u>Deflated and detrended FHA loans</u>
1965	14,273.5	19,205.5	4,004.3
1966	12,062.0	15,713.9	512.7
1967	11,743.0	14,860.7	- 340.4
1968	13,962.0	16,909.3	1,708.1
1969	15,376.5	17,731.2	2,530.0
1970	19,476.5	21,318.4	6,117.2
1971	21,726.5	22,627.1	7,425.9
1972	15,065.5	15,065.5	- 135.7
1973	7,472.5	7,062.9	-8,138.3
1974	8,429.5	7,265.6	-7,935.6
1975	9,768.5	7,682.7	-7,518.5
1976	11,841.0	8,855.7	-6,345.5
1977	20,820.3	14,693.2	- 508.0
1978	28,897.0	19,004.9	3,803.7
1979	33,128.0	20,021.8	4,820.6

Source: Compiled from the Special Analyses of the Budget; series interpolated to calendar year.

APPENDIX II

APPENDIX II

Table 12

The Difference Between FHA
and Conventional Mortgage Rates

	<u>Conventional mortgage rate</u>	<u>FHA ceiling mortgage rate</u>	<u>Difference between conventional rate and FHA rate</u>	<u>Detrended difference between conventional and FHA rate</u>
1965	5.813	5.250	0.563	0.118
1966	6.247	5.730	0.517	0.072
1967	6.457	6.000	0.457	0.012
1968	6.973	6.500	0.473	0.028
1969	7.805	7.440	0.365	-0.080
1970	8.448	8.459	-0.011	-0.456
1971	7.737	7.042	0.695	0.250
1972	7.595	7.000	0.595	0.250
1973	7.953	7.625	0.328	-0.117
1974	8.924	8.917	0.007	-0.438
1975	9.007	8.625	0.382	-0.063
1976	8.993	8.479	0.514	0.069
1977	9.013	8.291	0.722	0.277
1978	9.537	9.105	0.432	-0.013
1979	10.767	10.125	0.642	0.197

Source: The conventional residential mortgage rates are from Data Resources, Inc., central data base; DRI's source is the Federal Home Loan Bank Board. We obtained FHA ceiling rates directly from the Federal Home Loan Bank Board, and these ceiling rates are for single family housing only.

Table 13

Total Funds Advanced in U.S. Credit Markets
and Their Trends (in Billions of Dollars)

	<u>Nominal funds advanced</u>	<u>Deflated funds advanced</u>	<u>Trend in funds advanced</u>	<u>Deflated funds advanced minus its trend</u>
1965	71.500	96.206	86.339	9.867
1966	67.500	87.936	94.770	- 6.834
1967	79.000	99.975	103.735	- 3.760
1968	97.000	117.476	113.233	4.243
1969	95.300	109.894	123.264	-13.370
1970	109.700	120.074	133.829	-13.755
1971	144.600	150.594	144.928	5.666
1972	185.600	185.600	156.559	29.041
1973	200.600	189.603	168.724	20.879
1974	187.400	161.524	161.423	-19.899
1975	216.600	170.350	194.655	-24.305
1976	270.600	202.378	208.420	- 6.042
1977	332.100	234.368	222.719	11.650
1978	391.700	257.613	237.551	20.062
1979	395.000	238.728	252.916	-14.188

Source: Compiled from the Special Analyses of the Budget; series interpolated to calendar year.

APPENDIX II

APPENDIX II

Table 14
Conventional Mortgage Rates
and Their Trends

	<u>Conventional mortgage rate</u>	<u>Trend in conventional mortgage rate</u>	<u>Conventional mortgage rate minus its trend</u>
1965	5.813	6.085	-0.273
1966	6.247	6.371	-0.124
1967	6.457	6.657	-0.200
1968	6.973	6.943	0.030
1969	7.805	7.229	0.576
1970	8.448	7.515	0.933
1971	7.737	7.801	-0.064
1972	7.595	8.087	-0.492
1973	7.953	8.373	-0.420
1974	8.924	8.659	0.265
1975	9.007	8.945	0.062
1976	8.993	9.231	-0.238
1977	9.013	9.517	-0.504
1978	9.537	9.803	-0.266
1979	10.967	10.089	0.678

Source: Data Resources, Inc., central data base.

Table 15
Correlations Between FHA Loans
and Other Variables a/

	(1)	(2)	(3)	(4)	(5)
(1) New commitments for FHA loans	1.000				
(2) Gap between conventional and FHA rates	0.293	1.000			
(3) Real GNP	0.263	0.054	1.000		
(4) Total credit advanced	0.149	0.442	0.463	1.000	
(5) Conventional mortgage rate	0.331	-0.527	-0.125	-0.723	1.000

a/All series are deflated and detrended.

AGENCY COMMENTS AND CUP RESPONSE

We received letters from the Board of Governors of the Federal Reserve System, the Department of the Treasury, and the Office of Management and Budget, commenting on a draft of this report. We make general responses to the agency comments here; we respond to technical comments from the Department of the Treasury and the Office of Management and Budget after each letter. Our numbered responses relate to numbers in the left-hand margins of the letters. Where appropriate, we made changes and corrections in the final report to reflect agency comments, without specific notation.

All three agencies believe it is inappropriate to attempt to use controls over Federal credit programs for countercyclical purposes. Although their reasons vary, their main concerns are:

- that it would complicate current attempts at control,
- that it might stand in the way of other control objectives that ought to receive higher priority,
- that it might be detrimental to beneficiaries of credit assistance who have a true need for concessionary forms of credit assistance, and
- that it is inconsistent with recent thinking on economic policy that focuses on longer term objectives rather than on cyclical stabilization.

The fourth concern is shared by all three agencies.

We agree that current attempts at control are an important step forward, in that they represent an effort to bring Federal credit programs into the budget process. We also agree that a better understanding of the allocative effects (and possible unintended side effects) of Federal credit programs and a reassessment of programs' achievement of originally intended social purposes should have high priority. We have long advocated the pursuit of a budgetary control process for Federal credit assistance programs, continual evaluation of their efficacy, and identification of alternative means of assistance that would achieve credit program objectives more efficiently. In this report, we have not taken issue with current efforts at control, nor have we disagreed that standards and guidelines should be more coherent and that programs that are ill conceived, poorly designed, or no longer necessary should be eliminated.

We agree that the long run expansion of Federal credit programs should be halted. Current attempts at budgetary control as well as the development of guidelines and standards for the design of these programs will go a long way toward achieving this. In this report, we have simply said that in addition to

these considerations it would be desirable to consider controlling these programs by allowing loans to flow in a manner that does not detract from economic stability. We make this argument because the volume of these loan flows is large and the flows have not contributed to economic stability. For example, in our concluding chapter we note that

We suggest adding countercyclical economic stabilization as an important policy objective. Achieving this objective implies not just cutting rates of program growth--except for programs poorly designed or no longer appropriate, which should be overhauled or ended. Rather, it also implies varying program flows around some desired long term rate of growth that depends on the stage of the business cycle and the stance of fiscal and monetary policy. (pp. 22-23, emphasis added)

We do not agree that the proposal we advance in our report would necessarily stand in the way of other priorities or that it would complicate current efforts at control to the point of making them unsuccessful. Obviously our proposal presents a complicating factor in a growing list of priorities for designing Federal credit programs worthy of congressional consideration. Furthermore, control for purposes of improving the contribution that these programs make to economic stability would logically have to be implemented after a desired long term rate of growth for them has been settled on.

We agree with the observation that the desire to achieve a better stabilization record for credit programs must be balanced against the legitimate needs of program beneficiaries. What we propose would essentially alter the timing of assistance delivery to those with legitimate needs, not necessarily its magnitude. Furthermore, we believe that the characterization of the report as making "a sweeping recommendation that the aggregate volume of federal credit assistance should be controlled with a view toward stabilization objectives" is inaccurate (the Federal Reserve Board letter; see page 37). We agree that stabilization is desirable, but in the report we have indicated that the mechanism by which this should be accomplished should target loan levels and variations in interest rate program by program. We have indicated in the report that the Congress might want to survey Federal agencies that have responsibilities for credit programs in order to gather information on the relationship between program levels and subsidy levels. All this indicates not only that we recognize that the aggregate volumes should be controlled by controlling the pieces that make up the aggregate but also that we are responsive to the Federal Reserve's desire to add to what is known about which credit programs are "inherently procyclical" and which are not.

Controlling credit programs with a view toward promoting economic stabilization is not inherently in conflict with the

current attitude that the proper role of the Federal Government is to achieve a long term improvement in economic growth. Both the Department of the Treasury and the Federal Reserve believe that allowing credit assistance flows to fluctuate around some long term desired rate of growth is "fine tuning."

With regard to the comment of the Federal Reserve that the current view argues for Federal policies that are steady and more predictable than they have been, we have two observations. First, even though we are not in a position to write the complete specifications for the control mechanism that we propose, we believe that considerable automaticity could be built into it. That is, interest rate changes could be triggered by rates of growth in the economy rising above or falling below their desired levels. Alternatively, program interest rates could be made to move in tandem with market rates of interest, as the Department of the Treasury suggests. This would represent an improvement in the way these programs are currently controlled, and greater "certainty" would be associated with it than with administrated changes in interest rates. Automaticity in the mechanism would change expectations no more and no less than other Federal revenue and expenditure flow phenomena that act as automatic stabilizers to economic activity.

The evidence suggests that the procyclical activity of credit programs is a problem because no limits have been imposed on their growth and because their interest rates do not move in tandem with market rates. Acting on the microeconomic market concept of using the interest rate to ration credit program by program, allocating it to projects with the highest private rates of return, would promote, not detract from, long term economic growth. Only in the most superficial sense is our proposal antithetical to current thinking. Evidence exists that short run instability arises partly from the way in which the Federal Government presently conducts its Federal credit programs; doing something to counter this is not, in our opinion, antithetical to the current Administration's views.

With regard to the Federal Reserve's comment about the reporting requirement that we offer for congressional consideration, we have no objection to its being incorporated with the reporting requirement imposed under the Humphrey-Hawkins Act.



BOARD OF GOVERNORS
OF THE
FEDERAL RESERVE SYSTEM
WASHINGTON, D.C. 20551

Division of
Research and Statistics

June 26, 1981

Mr. William J. Anderson
Director
United States General
Accounting Office
Washington, D.C. 20548

Dear Mr. Anderson:

This letter is written in response to your recent request for comments on the GAO draft report entitled "The Congress Should Control Federal Credit Programs to Promote Economic Stabilization."

The rapid and uncontrolled growth of federal credit activities over the past decade is a subject of concern to the Federal Reserve. The fact that the volume of direct loans and loan guarantees outstanding has nearly tripled over the past decade, together with the widening range of economic activities assisted by federal credit programs, suggests the need for systematic review by the Congress. Nevertheless, it does not seem to us appropriate to attempt to use controls over federal credit programs for countercyclical purposes as the GAO report suggests.

Some important progress has been made toward establishing comprehensive review of federal credit programs in the context of the budget process. As you know, information on federal credit programs is now more readily available to the Congress and the public, and procedures for subjecting federal credit programs to budgetary control were tried on an experimental basis in the last session of Congress. This effort, however, is still in its infancy. It inevitably involves many difficulties including the necessity for the Congress to become familiar with the new information and to make hard decisions in the very sensitive area of committee jurisdiction. Therefore, it seems inappropriate now to complicate the problems with which the Congress is struggling. The GAO draft report would tend to do so by recommending specific objectives for control when the procedures for achieving control are not yet well established.

Furthermore, we believe that efforts to achieve better cyclical control of federal credit programs would stand in the way of achieving other objectives with higher priority. In our view, it is more important for the Congress to focus its main attention on achieving a better understanding of the allocative efforts (and possible unintended side-effects) of the broad array of credit programs, and on limiting the long-run expansion of federal credit programs by assessing whether some programs which served high-priority social purposes in the past may now divert credit from more important uses. In addition, it is important for the Congress to develop criteria for

Mr. William J. Anderson
Page 2

determining whether credit assistance, direct spending or tax provisions are the most appropriate tools for achieving the goals of specific programs.

Emphasis on the cyclical characteristics of federal credit programs must take into account the specific intent of some programs to protect certain types of borrowers--those deemed to be disadvantaged in credit markets or to have very high-priority needs--from fluctuations in the cost and availability of credit. Before making a sweeping recommendation that the aggregate volume of federal credit assistance should be controlled with a view toward stabilization objectives, it would appear desirable to assist the Congress in determining the number and size of programs that are inherently procyclical. In addition, the Congress will need assistance with the difficult problem of determining the economic costs of procyclical patterns in federal credit programs in order to balance these costs against the benefits of assisting particular groups of borrowers.

Finally, it should be noted that the thrust of economic policy recently has been to focus on longer-term objectives rather than on cyclical stabilization. Reports by the Joint Economic Committee during the last Congress, for example, emphasized pursuit of steadier and more predictable policies and gave a high-priority to attacking structural problems such as slow productivity growth and imperfections in labor markets. The current administration is also emphasizing the predictability of economic policy in view of the important role of expectations in influencing economic developments. Thus, the central premise of the GAO draft report seems to be at variance with the general direction of current economic policy.

In regard to the recommendation that the Congress require periodic reports by the Board of Governors on the success of any mechanisms for controlling federal credit programs, we would like to note that the reports submitted twice a year under the Humphrey-Hawkins Act provide a forum in which the Board can discuss conditions in financial markets and the relation between the goals of monetary policy and budgetary policy. Additional and separate reports, focused solely on federal credit programs, would not appear to assist policy coordination. On the contrary, reports evaluating growth and fluctuations in federal credit assistance that had already occurred might serve only to generate needless controversy.

I appreciate the opportunity to comment on the draft report and hope that these comments will be useful to you.

Sincerely yours,



James L. Kichline
Director



DEPARTMENT OF THE TREASURY

WASHINGTON, D.C. 20220

ASSISTANT SECRETARY

June 26, 1981

Dear Mr. Anderson:

I am pleased to respond to your request for the views of the Treasury Department on a draft of a proposed GAO report, "The Congress Should Control Federal Credit Programs to Promote Economic Stabilization".

We support the general conclusions in Chapter 3 that a formal mechanism for reviewing annual credit flows and that tighter controls on the choice, design, and administration of Federal credit programs are needed to control effectively the growth of Federal credit assistance.

In the last decade, rapid growth of Federal credit activity has had serious effects on the Nation's economy and on financial markets. The substantial increase in Federal credit activity has resulted in increased Government allocation of credit resources. Credit advanced under Federal auspices rose from 13 percent in the early 1970's to 23 percent of total funds advanced in U.S. credit markets in fiscal year 1980. Increased Government competition for limited credit resources adds to financing costs borne by private borrowers who do not receive Federal credit aid, and this in turn leads to increased demands for credit aid for previously unassisted borrowers. Also, as the Government assumes a greater share of credit risks traditional borrower-lender relationships are undermined and the discipline of the private market is weakened.

In testimony before the Subcommittee on Economic Stabilization of the House Banking, Finance and Urban Affairs Committee, I noted that efforts to control Federal credit programs must be focused on both the quantity and price of these programs. The quantity must be controlled through more effective budget-appropriations controls over all credit programs. In this regard, the criteria used in developing the reductions in credit activity in the credit budget presented in March by the President were identical to the criteria used for budget expenditure reductions. The President's credit budget is grounded on the need to curtail the effects of large Federal demands on the credit markets. It seeks to reduce subsidies to middle and upper income borrowers, target aid to borrowers who lack access to other credit sources, eliminate ineffective programs, and place increased reliance on normal market forces to channel credit to the most productive uses. A formal Congressional credit budget, should Congress decide to implement one, would be a good step and would complement the President's credit budget.

- 2 -

As to controls through the pricing mechanism, I testified that much can be accomplished through both legislative and administrative actions. Borrowers should be required to demonstrate that credit is not otherwise available on reasonable terms in order to be eligible for Federal credit assistance. Some credit programs have specific statutory provisions for low interest rates and other liberal loan terms and conditions. These should be tightened whenever feasible. Higher interest rates, tightened eligibility standards, reduced maturities, increased collateral requirements, and other actions to make credit aids less attractive would encourage would-be applicants to meet their credit needs in the private market without Federal aid.

More careful attention to program design can also help to minimize the procyclical tendencies identified in the draft report. For example, the interest rate charged to new borrowers under many programs is fixed by law or determined under relatively inflexible statutory interest rate formulas. As market rates of interest rise, the interest rate subsidy to new borrowers increases automatically. Thus, Federal credit programs with fixed or relatively inflexible interest rates result in the greatest demand for Federal credit aids and related grant funds at the time of highest market interest rates, which are also likely to be the times of greatest inflationary pressures and need for restraint. This perverse effect can be reduced if the interest rates charged new borrowers are required to vary at least as much as market rates of interest vary. Under this approach, any subsidy deemed necessary could be provided, but it would be based on a conscious decision and not on the accidental result of changes in market forces.

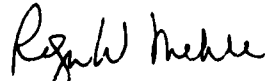
While much can and should be done to remove built-in procyclical biases from Federal credit programs, we would recommend against converting Federal credit programs into mechanisms for fine tuning the economy in a countercyclical manner, as the draft report proposes. There is increasing evidence that attempts to fine tune the economy via monetary and fiscal policy have generally foundered on recognition lags and also on lags between administrative actions and the impacts of those actions on economic activity. Thus, a consensus is building that attempts at fine tuning have exacerbated swings in economic activity rather than smoothed them. The proper course is to put in place and consistently apply a set of policies directed at achieving an improved economic performance over the longer term.

Appended are some comments on specific aspects of the draft report. They may be helpful to your staff in revising it.

- 3 -

I appreciate this opportunity to comment on your draft report on the control of Federal credit programs. Please let me know if I can be of further assistance.

Sincerely,



Roger W. Mehle
Assistant Secretary
(Domestic Finance)

Mr. William J. Anderson
Director
General Government Division
General Accounting Office
Washington, D.C. 20548

Enclosure

Comments on GAO Paper Proposing
Countercyclical Implementation of Credit Programs

1. The paper reviews movements of the overall volume of Federal credit assistance and concludes that they have been procyclical. There can be little argument with that conclusion which has also been reached by others. The report then proposes that terms of the subsidy in various Federal credit programs be altered across the cycle to make the programs countercyclical.

The particular hypothetical example used (diagrams on pages 3-7 and 3-8) is one in which a limited quantity of subsidized credit is made available at below rates prevailing in private markets and the terms of that credit are to be manipulated so as to influence the demand for it. It should be noted, that as long as something is to be provided at below the market rate, the demand will continue unabated until the gap between the subsidized and market rates is closed.

More generally, subsidies might be analyzed in terms of payments to reduce costs of providing a particular good or service and thereby inducing a shift outward in the supply curve for that particular item. Under the proposal, terms of the subsidy would presumably be manipulated to shift the supply curve inward or outward, depending on whether the economy is in an upswing or a downturn. However, the stage of the cycle also corresponds to the periods when inflationary pressures are strongest or weakest, and inducing shifts in supply curves would exacerbate inflationary pressures. The greater the inelasticity of either demand or supply, the greater would be the impact on price and the less the impact on quantity. If aggregate demand is to be managed in an anti-inflationary way, then manipulating terms of subsidies is not an efficient way to do it. A more fruitful line of analysis might be directed at ways in which the programs might be modified so that the subsidy does not vary automatically over the cycle in ways that are destabilizing.

2. The subsidy programs were designed to provide support for particular sectors, e.g., to encourage more people to obtain higher education, to encourage homeownership. Without debating whether they serve their designed purposes or not, it is not clear that the overall public purpose would be served by converting them to countercyclical programs.

3. The report does not indicate how a countercyclical policy might be implemented. Since there are generally lags between changes in the parameters of such programs and impacts of these changes on aggregate activity, implementation would require accurate forecasts of economic activity. As has been documented, such forecasts have not been sufficiently accurate, particularly in the most recent years, to permit fine-tuning of the economy. The burden on the manipulators would be great, as they would be required to know the magnitude and timing of the impacts of any changes they might make in program parameters. Rather, what is needed is a set of long-term policies consistently applied, and designed to improve the overall performance of the economy.
4. A considerable portion of the paper is devoted to the FHA program of mortgage insurance and how the subsidy under that program might be varied with the cycle to produce countercyclical results. Unfortunately, the analysis is flawed in that the paper treats as the subsidy the margin between rates on conventional loans and the ceiling rate on FHA loans, whereas the subsidy is really the mortgage guarantee by the Federal Government which reduces the risk to the mortgage holder, increases the liquidity of the mortgage, and permits a reduced downpayment. (Various FHA programs currently or in the past have involved interest or rent subsidies, but these are not addressed in the paper.) Mortgage funds are raised in the private market. A subsidy could only occur if a home seller inadvertently did not pass along all the points that market conditions would permit. At any rate, this would not be a subsidy provided by the Federal Government.
5. While the whole premise of the FHA program example is flawed, some technical problems with the statistical techniques used there should be noted.
 - Fiscal year data (a portion of which represents fiscal years ending September 30 and another portion years ending June 30) should not be regressed on a combination of calendar year and fiscal year data, particularly when a consistent set of data could readily be constructed.
 - Reasons for detrending interest rates are not apparent.
 - Series are labelled as detrended when they are not. (Series have merely been centered on their mean values.)

-- A logarithmic function would normally be used in constructing a time trend.

More fundamentally, an analysis of reasons for variations in new FHA loan commitments would require a detailed examination of a range of factors, including cyclical movements in housing markets, differentials between rates on FHA insured and conventional loans, effects of other subsidy programs on the volume of FHA insured credit.

GAO Response to Technical Comments
from the Treasury Department 1/

1. The position stated in the second paragraph would occur only if the demand for direct and guaranteed loans were infinitely interest inelastic. We agree that aggregate demand for direct and guaranteed loans should be managed in an anti-inflationary way. We believe that the approach we propose in this report would accomplish that result, and we do not fully understand the approach that the Treasury staff advocates.
2. This point is discussed on page 37, paragraph 3.
3. This point is discussed on page 38, paragraph 2. We indicate that the Congress consider surveying Federal agencies to gather the information necessary to make an accurate forecast of the effects of the level of the subsidy on loan demand.
4. We disagree that our measure of the FHA interest subsidy is invalid. As implied in the report, we believe the perception of the magnitude of the subsidy as it affects loan demand is more important than the actual subsidy after accounting for points borne by the seller and to varying extents passed on to the buyer. We agree that the interest subsidy, as we measure it, does not reflect the total concessionary terms on FHA loans. Nevertheless, the other terms do not fluctuate cyclically and therefore would not affect cyclical fluctuations in demand for loans. Whether the subsidy is provided by the Federal Government or the private sector does not seem important as it affects loan demand because the Federal Government can change its level by changing the ceiling rate on FHA mortgage loans.
5. Fiscal year data was interpolated to calendar years; all data in the final report are presented in calendar years. This adjustment has had little effect on our results and has not affected our conclusions. Interest rates were "detrended" so that estimates could be made using variables specified on a consistent basis. We do not agree that detrended time series are normally transformed to logarithmic form. With regard to the final point, we believe our specification of the relationship between FHA commitment volumes and explanatory factors is a reasonable one. Obviously, adding more complexity into the relationship might improve some statistical measures.

1/Numbered comments refer to numbered paragraphs on pp. 44-46.



EXECUTIVE OFFICE OF THE PRESIDENT
OFFICE OF MANAGEMENT AND BUDGET
WASHINGTON, D.C. 20503

July 27, 1981

Mr. William J. Anderson
Director, General Government Division
U.S. General Accounting Office
Washington, D.C. 20548

Dear Mr. Anderson:

I am pleased to have the opportunity of replying to your request for the views of the Office of Management and Budget on the draft of a proposed GAO report, "The Congress Should Control Federal Credit Programs to Promote Economic Stabilization."

We agree with the support that this report gives in chapter 3 for a "formal mechanism for reviewing annual credit flows" and for "tighter controls over the choice, design, and administration of Federal credit programs." As stated in the Fiscal Year 1982 Budget Revisions (March 1981), "rigorous control over Federal credit programs, including loans financed off-budget, is an important part of the President's budget reform plan." (p. 17) Making use of the credit control system, the Administration proposed substantial reductions in direct loan and loan guarantee programs last March. Credit programs will continue to be carefully reviewed under this system in the future.

We do not, however, agree with the draft report in its proposal that the Federal Government should attempt to use credit programs to promote economic stabilization. Moreover, we do not agree that the point of optimal control in a credit control system should be the subsidy rate instead of the level of the loan activity. Furthermore, we believe that there are important technical deficiencies throughout the draft report. The remainder of this letter discusses the principal issues of economic stabilization and point of control; the enclosure discusses technical matters.

Turning first to the economic stabilization issue, the record of the economy since the middle 1960's provides more than sufficient evidence that the activist use of fiscal and monetary policy to promote economic stability has failed. As stated in America's New Beginning: A Program for Economic Recovery (February 18, 1981):

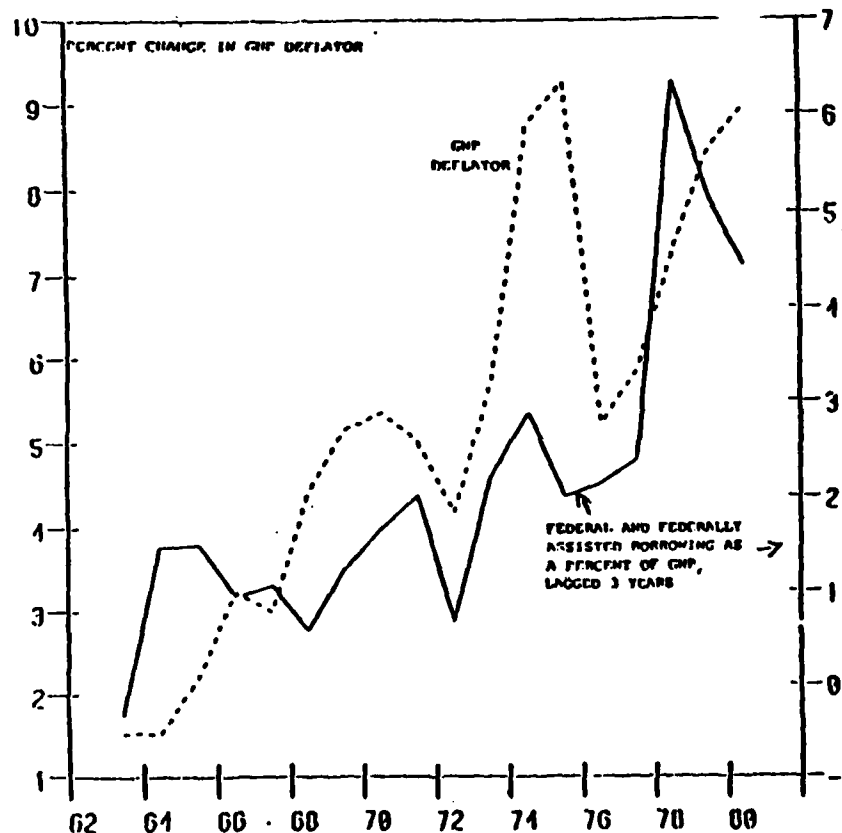
The Federal Government has greatly contributed to the persistence of high inflation. Overly stimulative fiscal and monetary policies, on average, have financed excessive spending and thus pushed prices upward ... When inflationary outbursts occur, policymakers all too often have made a quick turn toward restraint Subsequent declines in employment and growth inevitably call forth stimulative policies before inflation can be brought under control. Such "stop-and-go" policies have only resulted in higher unemployment and lower real growth. (pp.4-5)

The principal point is the failure of stop-and go policies used by government since the mid-1960's. The use of loans, loan guarantees or other sources of Federally assisted credit is nothing but an extension of the familiar pharmacopeia of spending, taxing, borrowing and fine-tuning. Moreover, as you know, the track record of government economic management during the past 15 years has been quite disappointing. Indeed, it appears that government credit policy has been a large part of the problem of declining economic performance.

	Average Level of Federal and Federally-assisted Credit (\$B)	Average Credit Absorption of Total Funds Raised by Non-Financial Sectors	GNP Deflator	Output Per Hour*	Unempl Rate
1960-65	14.9	27.0%	1.6	3.4	5.2
1966-70	21.6	26.0%	4.2	1.9	3.9
1971-76	66.1	35.0%	6.4	2.1	6.4
1976-81	123.6	37.0%	9.5	0.7	6.8

* Private Business Sector

I particularly wish to point out the dangers of expanded government credit provision with respect to inflation. Research efforts at OMB indicate that total Federal and federally assisted credit flows tend to influence the rate of inflation with an approximate 3 year time lag. Without question, expanded Federal credit demand has generated new inflation expectations and upward interest rate pressures. This has interfered with the appropriately restrained conduct of monetary policy and has contributed to double-digit inflation and weakened economic performance.



One of the lessons of the inflationary credit spiral is the difficulty in accurately predicting the public's response to changes in credit policy. During the past 10 or 15 years it has been argued that credit expansion could be used to stimulate production and employment throughout the economy. By the early 1980's, however, it has become clear that credit expansion has mainly produced excess liquidity, accelerating inflation and record interest rates rather than sustainable growth of jobs or output. As a lesson for the 1980's, the experience of the 1960's and 1970's would strongly suggest the need for reduced government credit, in all its forms, as a means of inducing lower inflation and a more sustainable path of economic growth.

In the end, it would seem that no amount of fine-tuning, no matter how wise the policymakers, can act as a substitute for the competitive market system and the price mechanism which drives the market system. No group of individuals can possibly hope to possess the same degree of knowledge as the collective wisdom of the marketplace, nor can any group of policymakers match the market in the efficient allocation of resources. To assume otherwise, that individuals possess greater wisdom than the market, is in the words of Friedrich Hayek's 1974 Noble Lecture the "pretense of knowledge."

When policymakers in recent years have imposed their decisions on the market order, the result has been an unprecedented expansion of government and private credit and the highest peacetime inflation rate in our Nation's history. This inflation, along with numerous misguided government regulatory interventions, has caused a serious misdirection of resources in the real sector of the economy and an equally serious disruption in the financial sector. By now the lesson for future policy should be clear: the competitive market system and its price mechanism, for all its imperfections, is still the most efficient allocator of resources and the most reliable organizer of economic activity.

As a final thought on the stabilization issue, it is important to note that at low points in the business cycle private sector firms are most in need of access to saving and investment resources. As business begins to plan for the replenishment and expansion of capital goods, production facilities, machine tools and the like, it is essential that long-term capital be readily available from the financial markets.

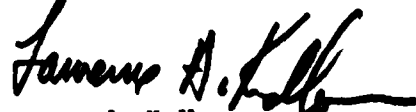
Competition from government, however, to finance direct loans, guaranteed loans or other forms of assistance, only serves to reduce the availability of investment funds and to prevent interest rates from dropping to an equilibrium level. As a result, government stabilization plans frequently prevent economic recovery and may actually inhibit the revival of production and employment.

Turning to the point of control issue, the main problem is the absence of knowledge regarding the effect of a change in the subsidy rate on the quantity of direct loans or loan guarantees. The draft report itself acknowledges "that there are little data and empirical results on the interest elasticity of demand for direct and guaranteed loans" (pp. 3-10), and in chapter 4 it offers little hope for extending our knowledge to many programs. The report's only defense is that fiscal and monetary policy have uncertain effects also. In our judgement this is an inadequate policy response. Instead, to directly restrict the government's absorption of national resources, the President's budget control plan anticipates a substantial reduction in the level of Federal and federally assisted borrowing during the years ahead.

In addition, the underlying rationale for credit assistance programs is inconsistent with the proposed use of price rationing. Credit subsidies are justified, validly or not, in terms of accomplishing a program goal: export promotion, access to college, electric power distribution, housing production, aid to farmers hurt by a drought, etc. These justifications assume a public benefit -- an improved balance of payments, more equal opportunity, relief of distress, etc. -- that the private sector presumably cannot generate. This implies that the benefits of the program are not to be gauged by willingness to pay. If one purpose is to aid students from families with low or moderate income to go to college, it would be inconsistent with program objectives to let the moderate income students outbid the low income students for a limited amount of loan guarantees. If at least some credit assistance programs are justified, price rationing should not be used to allocate their benefits.

I hope that these comments and the more technical discussion in the enclosure will help your staff. Please let me know if we can be of further assistance.

Sincerely,



Lawrence A. Kudlow
Assistant Director for
Economic Policy

Enclosure

ENCLOSURE

Technical Comments on GAO Draft Report,
"The Congress Should Control Federal Credit Programs
to Promote Economic Stabilization"

This enclosure discusses technical matters in the draft report, chapter by chapter. The subjects discussed in the letter to which this enclosure is appended are not repeated. Where a subject pertains to more than one chapter in the report, it is discussed under the chapter where it is most prominent.

Chapter 1

The figures used to describe the current amounts of loans outstanding and net lending -- over \$600 billion for the former and over \$80 billion for the latter -- are either misleading in the context of the draft report or else they are incorrect:

-- For these figures to be correct, they would have to include Government-sponsored enterprises. Since the entire draft report is about direct and guaranteed loans only, it would be misleading to introduce the reader to the subject by using a broader and unidentified concept in the initial two sentences. It does not appear that this was intended. Chapter 5 and the cover summary use the same figures with explicit reference to direct and guaranteed loans alone.

1

-- If these figures are for direct and guaranteed loans alone, the amount of loans outstanding does not currently exceed \$600 billion. Table F-7 in Special Analysis F of the 1982 budget has estimates of \$541 billion at the end of FY 1981 and \$622 billion at the end of FY 1982. Net lending may not currently exceed \$80 billion. Table F-7 has estimates of \$78.4 billion for FY 1981 and \$81.5 billion for FY 1982. These figures are based on the previous administration's policy and do not reflect the substantial reductions proposed by this Administration. We do not, however, have revised estimates based on this Administration's proposals and other developments since January.

2

The "data reliability" of direct loan obligations and loan guarantee commitments obtained from successive editions of the special analysis on Federal credit programs (currently Special Analysis F) should not be characterized as "very good." (p. 1-4) The weaknesses arise in large part from the published measures during 1960-79 being for informational purposes only rather than the formal requirements of the budget. For many years, until recently, there were no checks of internal consistency for the

-2-

- 2 [obligation and commitment data. There have been errors, changes in concepts, mergers of accounts, altered accounting treatments, etc. Hence, the standards of historical continuity have not been exacting, and year-to-year comparisons are of somewhat limited validity.

Chapter 2 and Appendix I

The statistical analysis should have been continued beyond 1979 to 1980.

Current budget terminology refers to "obligations" for direct loans, not "commitments."

Credit assistance and stabilization.--The analysis in this chapter does not establish its conclusion that "Federal [credit] activity over the past 20 years may be characterized as having been generally destabilizing." (p. 2-12) This conclusion is undoubtedly correct, but there are deficiencies in the way it was reached. The data deficiencies common throughout the chapter's analysis are discussed at the end of this section.

- 3 [In testing whether credit assistance has been stabilizing or not, the draft report compares credit assistance with economic activity. The report looks at only one measure of economic activity, real GNP relative to its trend. This comparison is too simple. Even at the most aggregative level economic stabilization policy (or macroeconomic policy) is also concerned with other goals that are not easily related to this measure (or may be perversely related at times). These include concern with inflation, productivity, the growth of potential GNP, and the balance of payments. In terms of macroeconomic objectives, the desirability of the credit policy being followed at any time should not be judged without considering other variables such as these. (It should also not be judged without considering program merit.)

- 4 [A stabilizing credit policy is defined in two different ways in the draft report, and the two definitions are used interchangeably. One definition is that credit assistance flows "should move in a direction that is opposite to the direction of the business cycle" (p.2-1); the other, that "when the rate of economic activity is relatively high, credit assistance flows should be low in comparison to their historical trend," and vice versa (p. 2-8). These criteria are different. For the economy to be rising does not imply that GNP is above trend, and for GNP to be above trend does not imply that the economy is rising. The former criterion makes very bad sense. It implies that the Government should try to restrain the economy when it begins to recover from a recession. The second criterion was the one actually used in the statistical tests.

- 5 [The real GNP indicator used to tell whether credit assistance should have been stimulative or restrictive was whether real GNP

-3-

5 [was above or below its 1960-79 trend. This is not appealing, even regardless of other policy goals, since the average might be too high or too low. Use of the average trend, furthermore, appears to assume a constant growth rate of potential GNP, whereas the potential growth rate actually declined. The potential GNP gap would be a better statistic.

6 [Stabilization is tested solely by comparing the signs of the deviations of credit assistance and real GNP from their trends. The report should also have used regression analysis, which is a more powerful tool, beyond just reporting a correlation coefficient in an appendix table without any discussion.

7 [The report concludes that credit assistance has been destabilizing. For fiscal and monetary policy, however, it says that because of complex lags and the use of annual data "it is beyond the scope of this report to assess whether, on balance, fiscal and monetary policy contributed to economic stability." (p. 2-10) Since the effects of credit policy also have complex lags and are also studied in this report with annual data, it would seem that there is equal reason to conclude that the report also cannot assess whether, on balance, credit policy contributed to economic stability. Simply comparing simultaneous credit flows and real GNP is not enough.

8 [The report says that it cannot judge how much credit policy has been destabilizing, only that this effect has been greater than zero. If credit policy has been destabilizing but only by a slight amount, the conclusion does not have much policy significance.

Coordination of credit assistance with other policy.--The analysis in this chapter also does not establish its conclusion "that Federal credit assistance flows have generally not been coordinated with the stance of fiscal and monetary policy." (p.2-10) In all likelihood this conclusion is correct, but there are deficiencies in the way it was reached. Those criticisms made in the discussion above are not repeated below.

9 [The report first of all does not consider what is meant by "coordinating policies." It implicitly assumes that coordination requires all policies to be stimulative or restrictive at the same time. This is not correct in a world with more than one goal. As a simple example, suppose that certain policymakers decide the economy needs active stimulus; that monetary policy is stimulative; and that for program reasons (an efficient allocation of resources within the economy) credit assistance is cut. If monetary policy is made still more stimulative to compensate for the cut in credit assistance, these two policies are coordinated even though they are moving in opposite directions.

As noted above, the report says it cannot test whether fiscal and monetary policy are stabilizing. If this is so, why should

-4-

- 9 [credit policy be criticized for not being coordinated with fiscal and monetary policy? It can also be noted that according to the report's criterion fiscal and monetary policy were not coordinated with each other. The signs indicate opposite movements in 13 out of 20 years (also, the correlation coefficient is 0.04). How could credit policy have simultaneously been coordinated with both?

The measure of discretionary fiscal policy.--The high-employment surplus (HES) was used to indicate whether or not discretionary fiscal policy was stimulative. From any theoretical perspective this measure has important limitations, which ought to be explicitly recognized in order to qualify the conclusions.

- 10 [The HES was not used properly in the analysis. The report infers fiscal stimulus or restraint according to whether the high-employment budget is in deficit or surplus, respectively. This is not a valid inference, even apart from the limitations of the concept. In the use of this concept what matters is the change in the HES, not the level. Discretionary fiscal policy can be considered stimulative if the HES decreases from one period to another, and a particular policy can be considered stimulative if it would cause the HES to decrease or to be lower in some period than it would be otherwise -- regardless of whether both HES's being compared are positive, both are negative, or one is positive and the other is negative. The critical nature of the change in the HES, not the level, has been pointed out by such supporters of discretionary fiscal policy as Okun and Teeters, Blinder and Solow, and Gordon. ^{1/} The reason is straightforward. In terms of very simple Keynesian models the HES is an indicator (though an imperfect one) of the extent to which discretionary fiscal policy has shifted the aggregate demand schedule from a no-government economy. A change in the HES therefore indicates a change in the aggregate demand schedule, i.e., stimulus or restraint.

- 11 [The HES data should have been deflated by potential GNP (in current dollars) to standardize for growth and inflation.

- 12 [The report does not give the source of its HES data. Nor does it say whether they are for fiscal years or calendar years, or whether they are for the unified budget or the Federal sector of the NIPA accounts. The data are not the NIPA estimates published in the November 1980 Survey of Current Business, nor are they the latest OMB budget estimates made in February of this year.

^{1/} Arthur M. Okun and Nancy H. Teeters, "The Full Employment Surplus Revisited," Brookings Papers on Economic Activity, 1970:1, p. 80; Alan S. Blinder and Robert M. Solow, "Analytical Foundations of Fiscal Policy," in Blinder et al., The Economics of Public Finance (Washington: Brookings, 1974), p. 16; and Robert J. Gordon, Macroeconomics (rev. ed.; Boston: Little, Brown, 1981), pp. 516-17.

-5-

The measure of monetary policy.--Monetary economists do not agree on how to measure the stance of monetary policy. The two principal approaches are based on monetary aggregates, since they are controlled by the Federal Reserve System, and estimates of real and nominal interest rates. The draft report uses instead the difference between the average percentage change in velocity over the whole period and the actual percentage change. If velocity increases less than average, monetary policy is called expansionary. This measure is not a standard one and therefore requires justification.

13 [This measure requires justification all the more because its rationale is not apparent and it appears to have some unacceptable implications. Monetary policy is defined as neutral if trend-adjusted velocity is constant. Suppose that velocity initially is on its trend. Then, if the economy falls into a depression and money falls in proportion along with it, such that trend-adjusted velocity is constant, monetary policy is characterized as neutral; if the economy has a great boom and money rises in proportion along with it, monetary policy is characterized as neutral. If an increase in money produces an immediate and proportional rise in the price level (holding real GNP constant), monetary policy is in fact causing inflation; but with the trend-adjusted velocity being constant, monetary policy would nevertheless be characterized as neutral. These implications are anomalous.

In discussing this method the draft report contends that velocity has risen secularly in the last two decades only because nonmonetary means have more and more been used to facilitate transactions. This has indeed been one reason for the rise in velocity. However, other reasons surely have been the increases in interest rates, stock yields, and inflation, which have raised the price of holding money relative to holding interest-yielding assets, common stock, and real assets. These effects may also have induced some of the use of nonmonetary means of facilitating transactions.

14 [The data.--The data used in this chapter have serious defects. The credit data are for fiscal years, of course. The GNP data are not labeled but are for calendar years. The discussion in the text is solely in terms of testing a contemporaneous relationship between credit flows and real GNP. Thus, the statistical comparison does not test the hypothesis that the report says it was testing. If lags between economic variables were desired for the test, this decision should have been stated and justified. Moreover, if lags were desired, the proper lag would not be expected to decrease by one quarter in 1976, when the timing of the fiscal year was advanced by one quarter.

The money supply figures are on a still different basis, which also is not stated in the report. They are for December. Velocity is consequently calculated as the ratio of calendar year GNP to December money, which is an inconsistent construction.

-6-

15 [Some of the data series are not up-to-date or internally consistent in the degree to which they are up-to-date. Money supply is stated, correctly, as M1, which was replaced by M1A and M1B in early 1980. The GNP data are more of a mixture. Nominal GNP for 1960-74 is based on the December 1980 benchmark revision, whereas nominal GNP for 1975-79 is prior to the benchmark revision. Real GNP and the GNP deflator for all years are prior to the benchmark revision. The revised data should have been used for all years and all series. It should be noted that velocity was calculated using the internally inconsistent nominal GNP series.

16 [The credit assistance series includes a great deal of double counting, which is not mentioned. In terms of current terminology, the report included commitments for "guaranteed loans (gross)" instead of "primary guaranteed loans." The difference is that the latter series is net of guarantees of loans that have already been guaranteed once or that are also direct loans. This difference is displayed in the table from which the numbers were gathered. As a result of using the wrong series, FFB's direct loan obligations were counted, for example, not only as FFB direct loan obligations but also as agency loan guarantee commitments. This double counting raises the level of credit assistance substantially in some years. For example, in 1979 the credit assistance in the report is \$60.5 billion above the correct level of \$138.3 billion. Moreover, the effect is uneven among different years. In 1979 the level is raised by 44%; in 1976, by 41%; in 1972, by 19%; and in 1971, not at all. The percentages tend to be higher in later years both because the credit activity is now more complex and because the special analysis now records these transactions more comprehensively. Consequently, the trend in the credit assistance series is biased upwards, and the year-to-year changes are unreliable.

17 [The series denoted as housing credit is FHA and VA loan commitments only, and should have been labeled as such. A series on housing credit should have been deflated by the residential construction deflator, not the GNP deflator; and the deflator should have been for fiscal years, not calendar years.

Chapter 3

18 [At several places this draft report understates the extent to which a credit control system is now in place. The report cites the 1982 Budget as containing a credit budget. The report thereby implies, mistakenly, that a credit budget was not also included in the 1981 Budget, in the Fiscal Year 1981 Budget Revisions (March 1980), and in the Fiscal Year 1982 Budget Revisions (March 1981). The report also calls the President's credit budget a "proposal" (pp. 3-1 and 3-3) and refers to its use in the conditional. (p. 3-2) On the contrary, the credit control system and the credit budget have been used. The credit

-7-

- 18 [budget in the Fiscal Year 1982 Budget Revisions proposed a \$13.6 billion policy reduction in obligations and commitments for 1981 and a \$21.0 billion policy reduction for 1982.
- 19 [The report is literally correct, but at the same time incomplete and therefore somewhat misleading, in saying that Title IV of the Congressional Budget Act excludes loan guarantees from the targets and ceilings on budget authority and outlays that can be considered in the budget resolutions. The Act does not exclude loan guarantees and off-budget direct loans from being included in the budget resolutions with their own targets and ceilings (though a point of order cannot be made against a breach of such targets or ceilings). The fiscal year 1981 budget resolutions and the first budget resolution for fiscal year 1982 did include credit budgets.
- 20 [The report overstates its case in saying that "Federal credit assistance has escaped budget scrutiny" (p. 3-3), although for past years it is much closer to being right than wrong. Apart from the new credit budget -- a major exception -- some direct loans are in the budget, explicit interest subsidies are in the budget, a small amount of off-budget spending is subject to appropriation bill limitation, and budget authority is necessary to cover the contingency of default in loan guarantee programs.
- The draft report is mistaken in asserting that none of the proposals for credit control -- explicitly including the present credit control system -- "explicitly calls for consideration of the economic effects of Federal credit activity" or has any "economic rationale beyond budget restraint in the name of fiscal responsibility." (p. 3-3) When the previous administration introduced the credit control system, it explicitly stated the economic goals of program effectiveness, proper allocation of resources among broad sectors of the economy, and consideration of the impact of Federal credit activity on private borrowing needs, economic growth, inflation, and employment. (1981 Budget, p. 19) The importance of considering the impact of credit on the economy as a whole was repeated in the 1982 Budget. (p. 18) When the present Administration introduced its budget proposals in March, it stated that its criteria for credit reductions were "identical to those used for on-budget expenditure reductions." (Fiscal Year 1982 Budget Revisions, p. 17) It explained its detailed credit reduction proposals as primarily the result of applying three economic criteria: cutting economically inefficient subsidies, reducing the redistribution of income to middle and upper income families, and restraining otherwise useful programs whose social value was less than that of other programs. (*ibid.*, pp. 19-23)

Chapter 4 and Appendix II

The analysis in this chapter does not establish its general conclusion: "it is reasonably certain that changing subsidy

-8-

levels will in general influence loan flows from Federal credit programs." (p. 4-6) This presumably is correct, but it is necessary to study more than one program in order to establish this conclusion statistically or to estimate the size of the effect. FHA, even though the largest program, does not represent all Federal credit programs. If other programs cannot be studied, the draft report should acknowledge that the question cannot be answered.

The analysis in this chapter also does not establish its specific conclusion: "in the case of the FHA insured mortgage loan program . . . the subsidy exerts a strong influence on the level of new commitments." (p. 4-6) The analysis used to reach this conclusion has many deficiencies.

First of all, the draft report purports to measure a subsidy on FHA insured mortgages as the difference between the conventional mortgage rate and the FHA ceiling rate. This is not correct:

- The effective interest rate to a borrower with an FHA insured mortgage depends on points as well as the nominal interest rate; these points, set by the market, tend to reduce or remove the apparent differential to the borrower between the conventional rate and the FHA rate on otherwise identical loans. The draft report acknowledges this illusion but goes ahead anyway. It should not have done so. If borrowers with FHA insured mortgages do receive any subsidy, it cannot be reliably measured unless points are taken into account and the effective interest rates for FHA insured and conventional mortgages are compared.
- The interest rate differential also fails to measure a subsidy accurately because neither the loans nor the lender's security are the same for conventional and FHA loans. FHA loans have a higher average loan to value ratio, and FHA resorts to court action to enforce its claims less rapidly than do private lenders. To be sure, these factors may not vary cyclically.

The incorrect measure of FHA subsidy, just taken alone, has two major implications:

- Since the interest rate differential does not measure an FHA subsidy, the regression equation does not estimate the demand for FHA commitments as a function of the subsidy rate (even without taking into account other deficiencies in the analysis). The statistical association between loan commitments and the interest rate differential was caused by other factors than the one postulated.
- FHA mortgage credit is not a good program for which to test the relationship between Federal credit subsidies

-9-

22

and the demand for direct loans and loan guarantees. A program with an explicit, direct Federal subsidy would have made a better choice.

A second set of problems in the chapter's analysis is the failure to measure correctly the demand for FHA insured loans.

23

-- The FHA subsidy is purportedly measured using just interest rates on single-family mortgages without explicit subsidies. However, the quantity of FHA insured loans that is demanded is measured by using total FHA commitments. This includes commitments for multifamily mortgages and home improvement loans; this also includes single- and multifamily mortgages that receive explicit interest rate and rent subsidies. The interest rates and demand for FHA insured single-family mortgages without explicit interest subsidies are much different and vary for different reasons than the interest rates and demand for these other FHA insured mortgages and loans.

-- The report uses FHA commitments rather than the amount of loans insured. During the period studied, lenders occasionally obtained FHA commitments with no intention of ever using them; FHA property appraisals have been underpriced, and many lenders used FHA commitments to take advantage of this. Thus, there may have been changes in the amount of FHA commitments for single-family mortgages unrelated to changes in subsidy levels or any of the variables in the regression equation. The report fails to recognize or take account of these effects.

-- The successful introduction and use of GNMA mortgage-backed securities, beginning around 1972, may have affected the demand for FHA insured mortgages without affecting the FHA subsidy or any of the variables in the regression equation. This is one of several major institutional changes that have affected housing finance over the years and that must be dealt with in any valid statistical analysis.

Thirdly, the draft report has a number of errors in data and in statistical analysis.

24

The dependent variable in the regression (FHA commitments) is for fiscal years; the independent variables are for both fiscal years (funds raised) and calendar years (GNP, conventional rates, and presumably the interest rate differential). This appears inconsistent. There is no justification, and the series are not thus labeled.

25

The text of the draft report says that the regression equation explains 40 percent of the variance in FHA loan commitments;

-10-

- 25 [table 4 says that $\bar{R} = .40$, which means that $\bar{R}^2 = .16$. Does the table have a typographical error? Or is only 16 percent of the variance explained? The report is inconsistent in saying that the levels of economic and financial activity have a positive influence on FHA commitments but are not statistically significant. If the latter is true (and the t-statistics are indeed less than 1.0), the former should not be inferred.
- 26 [The coefficient on the subsidy variable does not indicate that "nearly 60 percent" of the variance in FHA commitments is explained by the subsidy. All the independent variables taken together explain only 40 percent or 16 percent of the variance in FHA commitments (see the paragraph above), and one independent variable alone cannot explain more than the total. The method of deriving the figure of "nearly 60 percent" (or "69 percent" on another page, which would seem to be the correct arithmetic derivation) is invalid. Indeed, there is no way to answer the question precisely. The most common methods of judging the importance of a single independent variable in multiple regression analysis are coefficients of partial determination and beta coefficients (standardized regression coefficients), though both have limitations.
- 27 [The actual interest rate differential shown in table 3 is the same as the series in table 12 for 1965-69, 1972, and 1979 but different for other years. The "detrended" differential in table 3 differs from the corresponding series in table 12 for all years.
- 28 [A trend is not removed from a series by subtracting the mean value of the series or any other constant amount from each observation.
- 29 [The Federal Reserve frequently revises its estimates of funds advanced in U.S. credit markets, so old issues of Special Analysis F are not a good source to compile an extended time series. Furthermore, to the extent that data were obtained from Special Analysis F, the most recent publication should have been used. As a result, the figures for 1965-70, 1979, and possibly 1977-78 are out of date. The table should note that the data are for fiscal years.
- 30 [FHA commitments should have been deflated by the residential construction deflator, not the GNP deflator; and the deflator should have been for fiscal years, not calendar years.
- 31 [There are several series of conventional mortgage rates. The one that was used should have been identified and justified.

July 27, 1981

GAO Response to the Technical Comments
from the Office of Management and Budget

1. We modified the text (see p. 1) to show estimates for the end of fiscal 1981.
2. The Federal budget was considered to be the best source available. For each year of data used in our analysis, we used the most recent source and tried to maintain internal consistency by adjusting the data whenever necessary to compensate for new definitions of the accounts. The Congressional Budget Office was helpful in making the adjustments.
3. We did not feel that other comparisons would change our conclusions. They would, however, complicate the presentation. This is not to say that in formulating a credit policy to achieve stabilization goals that other factors like inflation and commercial interest rates should not be taken into account.
4. The text was modified to clarify this point (see p. 5).
5. The purpose of detrending is to remove the average growth rate so that we can concentrate on the deviations from the trend. We do not agree that potential GNP would have been a better measure. There has been disagreement over how best to measure potential GNP and differing estimates exist.
6. Using regression analysis would not have changed our conclusions and would have added little to the discussion.
7. The sentence was struck from the text because it was not the reason why we chose not to make statements about the efficiency of fiscal and monetary policy.
8. We are merely saying that it is difficult to quantify precisely the effects of Federal credit programs on the economy. The effects of fiscal and monetary policy are also difficult to quantify, but are nonetheless important.
9. Studies and congressional hearings have pointed out that monetary and fiscal policy were not coordinated in the 1970s and neither appeared to contribute appreciably to economic stability. However, the two policies could be coordinated. Some efforts have been made to reconcile them.

Federal credit programs have some characteristics that are related to monetary policy objectives and some that are related to fiscal policy objectives, but are probably most closely related to fiscal policy. If monetary and fiscal policy were not reconciled, credit programs might best be associated with fiscal policy goals.

10. The question is whether we should use the level of the surplus or the change in the level. Either produces the same conclusion when compared to the credit series. For consistency with other comparisons being made, all series were presented as the level for that year.
11. Since we used the level of the surplus, deflating will not change the sign.
12. The source was added and it appears in appendix I on page 30.
13. The scenarios presented are unlikely to occur. If the economy falls into a depression, interest rates would tend to fall and the demand for money would rise because the price of holding it relative to other interest earning assets would fall. In other words, money would not fall in relation to GNP in a recession. Velocity would decline. Even if the Federal Reserve took no action to expand the rate of growth in the money supply, the stance of policy could still be characterized as expansionary. If the Fed did increase the reserves available to the commercial banking system, velocity would decline even further and we would define the stance of policy as expansionary. If the economy were in a boom period, interest rates would rise and demand for money would fall because its relative price has increased. If the Federal Reserve did not expand the rate of growth in the money stock, velocity would rise. We would characterize monetary policy as contractionary. If the Fed reduced the rate of growth in the money supply, velocity would rise even further. Policy would be contractionary. In summary, there is no reason to expect the demand for money to fall during recessions and increase during boom periods, relative to changes in GNP. Thus, the only reason the results seem anomalous is because the scenarios presented are unlikely to occur.

We disagree with the characterization that the report indicates that only non-monetary means of facilitating transactions are responsible for secular increases in velocity.

None of this should be construed to mean that we believe our measure of the stance of monetary policy is better than others. Nevertheless, we do not believe it is inappropriate.

14. All series were adjusted to a calendar year basis in the report.
15. Most economic data published by the Government are periodically revised to correct minor flaws. We used the most up-to-date figures at the time the analysis was performed. Using data containing the most recent revisions would not change our conclusions.
16. Technically, this point seems valid. Some double counting is present. However, we performed the analysis presented in chapter 2 for both gross loans and adjusted primary loans and

obtained identical results for the aggregated detrended series. We did not present the adjusted numbers in the text because the adjustment could not be allocated between housing and nonhousing programs. See page 29, paragraph 3.

17. A footnote was added on page 10 to indicate that the housing loan series includes only FHA and VA data. The GNP deflator was used for purposes of monetary consistency. Use of the residential construction deflator would have changed real levels of the series but not the signs of the detrended series. All data are on a calendar year basis.
18. To say that the 1982 Budget contains a credit budget does not imply that the 1981 Budget doesn't. Our point in this discussion is that the credit budget is not supported by enacted legislation.
19. We do not agree that the statement is misleading.
20. The quoted passages have been removed or edited to clarify the issues presented.
21. It is our view that the perception of a subsidy, or lower mortgage rate of interest, is as important as the actual interest rate subsidy conveyed. For the sake of argument, had we adjusted the difference between FHA and conventional loan rates for points, subsidy levels would have been lower and fluctuations around the mean level of the adjusted subsidy may also have had lower values. If they did have lower values, our measure of the influence of the interest subsidy would probably have been higher than reported.

We agree that the interest rate subsidy does not measure the total concessionary terms of FHA loans. We also agree that the other terms do not fluctuate cyclically. Since only the interest rate subsidy does, that is the relevant variable to quantify for its influence on loan demand.

22. We disagree with these statements. As indicated in our previous comment, the validity of OMB's argument turns on whether the perception of an interest rate subsidy or the actual subsidy affects demand. Furthermore, we believe that choice of the FHA program is appropriate for reasons stated in the report.
23. We have added a discussion on p. 33 explaining to the reader some of the limitations of our data. The reasons why we believe FHA data are appropriate are discussed in the report.
24. All series have been interpolated to a calendar year basis.
25. This typographical error has been corrected.

26. We do not agree. In one case we are referring to the explanatory power of the total regression equation. In the other, we are interpreting what the value of the coefficient on the subsidy variable means.
27. This typographical error has been corrected.
28. We explain our technique in the footnotes to table 3.
29. In each case, we used the most recent publication available. Data for the entire period are not available in the most recent issue.
30. For the sake of consistency, we used the GNP deflator throughout the report.
31. A footnote was added on p. 35.

DATE
FILME